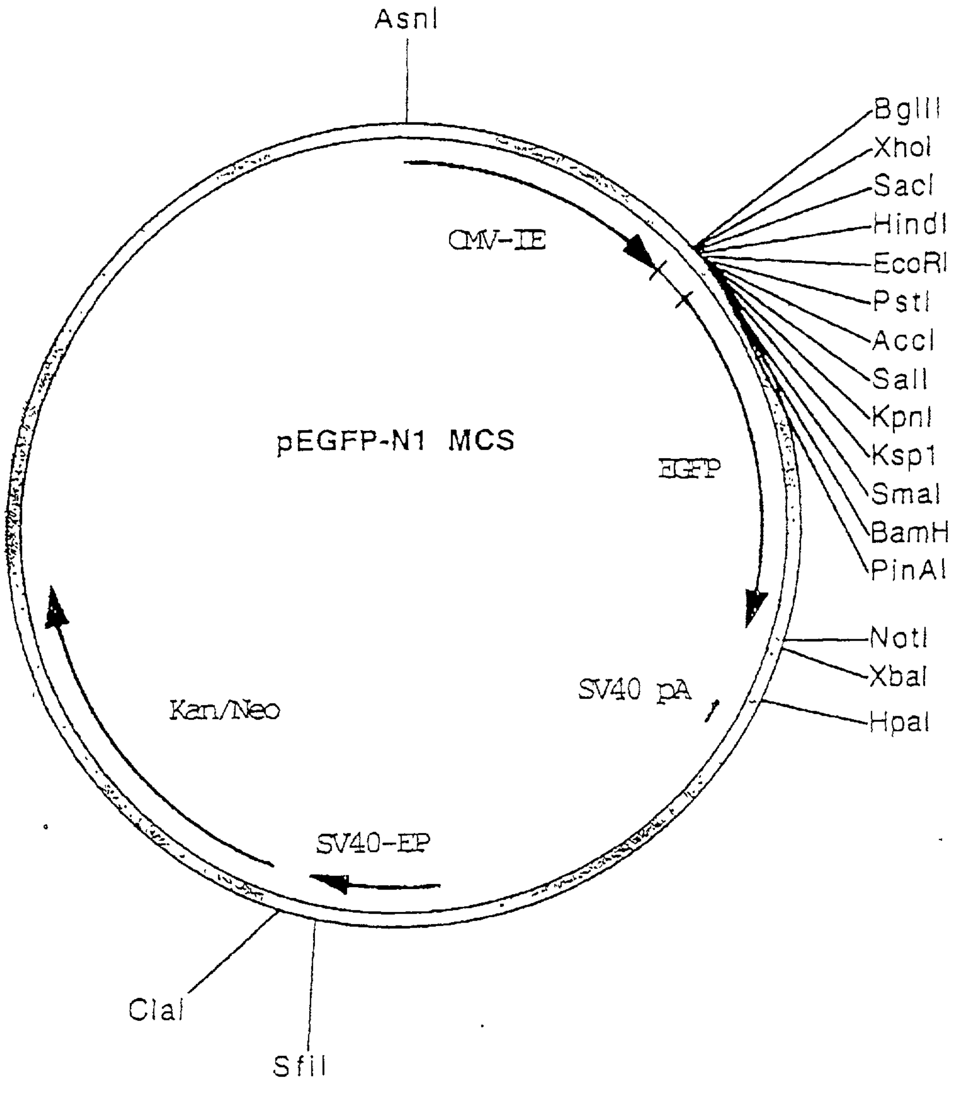

AsnI
BglII
XhoI
SacI
HindI
EcoRI
PstI
AccI
SalI
KpnI
Ksp1
SmaI
BamH
PinAI
NotI
XbaI
HpaI
CMV-IE
pEGFP-N1 MCS
EGFP
SV40 pA
Kan/Neo
SV40-EP
ClaI
SfiI

FIGURE 1

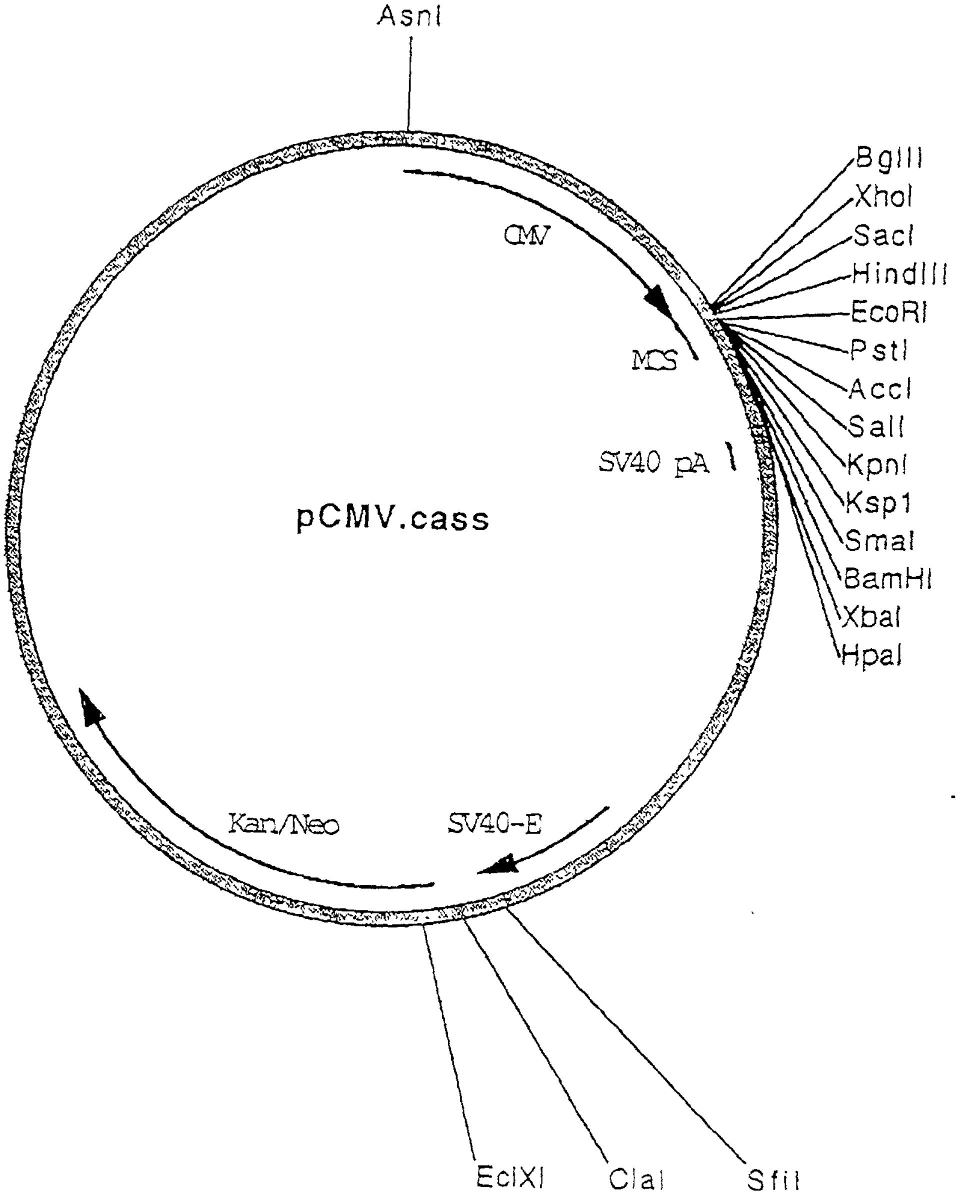

AsnI
BglII
XhoI
SacI
HindIII
EcoRI
PstI
AccI
SalI
KpnI
Ksp1
SmaI
BamHI
XbaI
HpaI
CMV
MCS
SV40 pA
pCMV.cass
Kan/Neo
SV40-E
EclXI
ClaI
SfiI

FIGURE 2

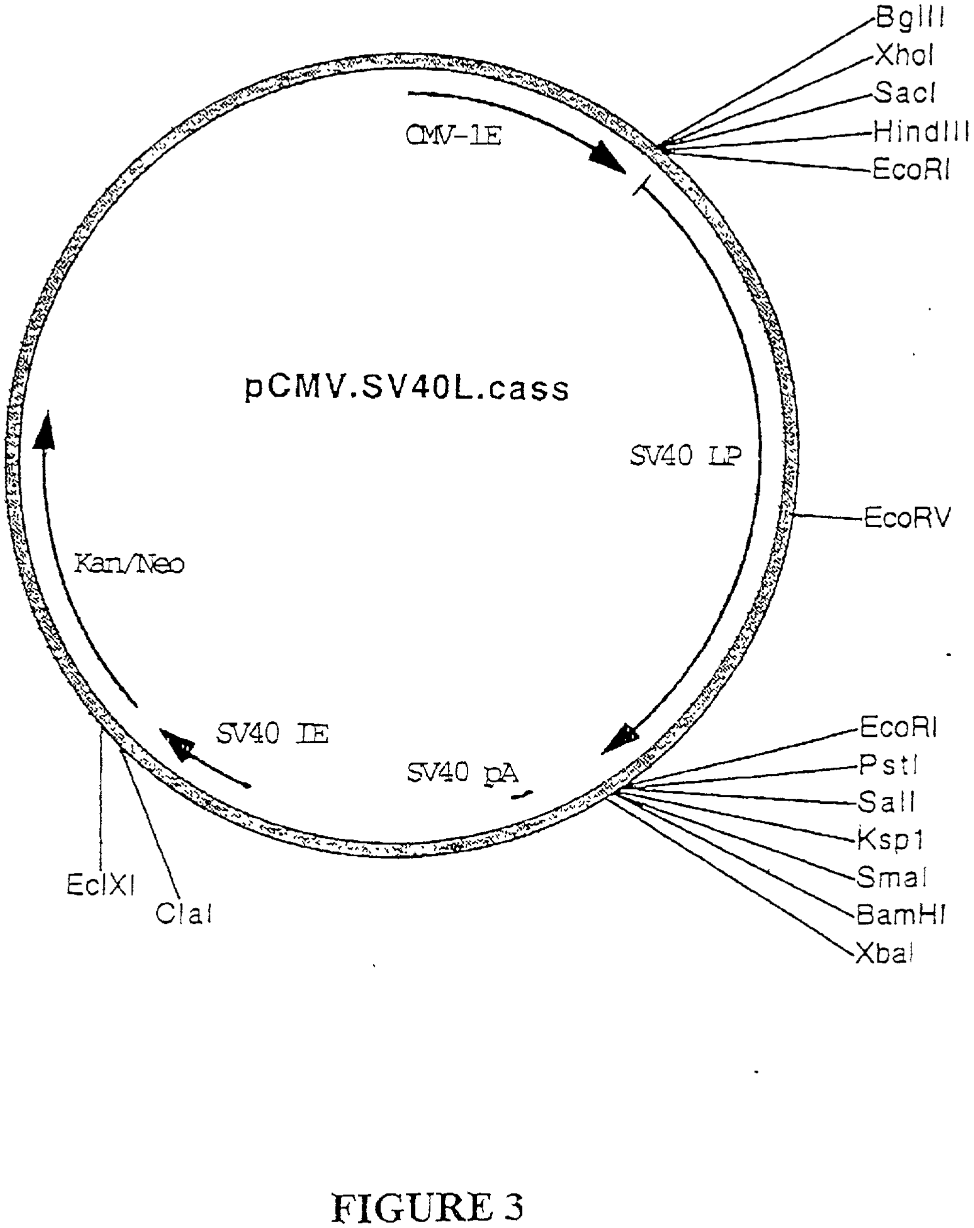

BglII
XhoI
SacI
HindIII
EcoRI
CMV-1E
pCMV.SV40L.cass
SV40 LP
EcoRV
Kan/Neo
SV40 IE
SV40 pA
EcoRI
PstI
SalI
Ksp1
SmaI
BamHI
XbaI
EclXI
ClaI

FIGURE 3

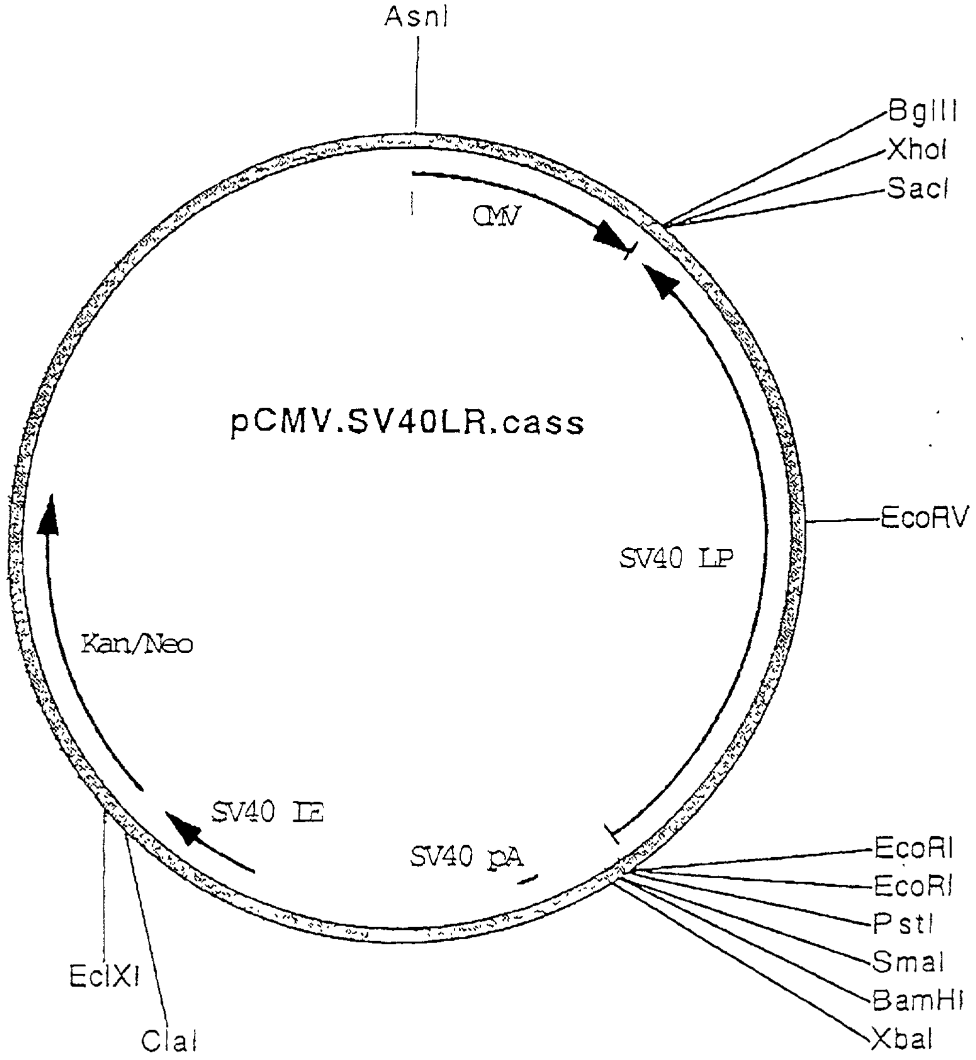

AsnI
BglII
XhoI
SacI
CMV
pCMV.SV40LR.cass
EcoRV
SV40 LP
Kan/Neo
SV40 IE
SV40 pA
EcoRI
EcoRI
PstI
SmaI
BamHI
XbaI
EclXI
ClaI

FIGURE 4

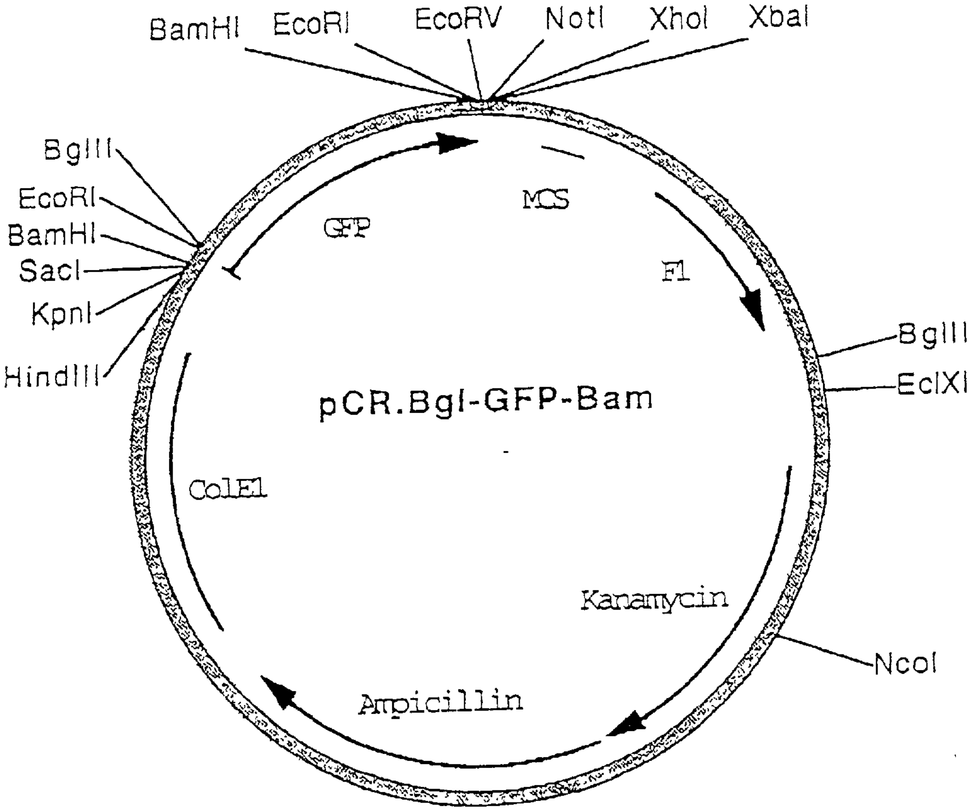

BamHI
EcoRI
EcoRV
NotI
XhoI
XbaI
BglII
EcoRI
BamHI
SacI
KpnI
HindIII
GFP
MCS
F1
BglII
EclXI
pCR.Bgl-GFP-Bam
ColE1
Kanamycin
NcoI
Ampicillin

FIGURE 5

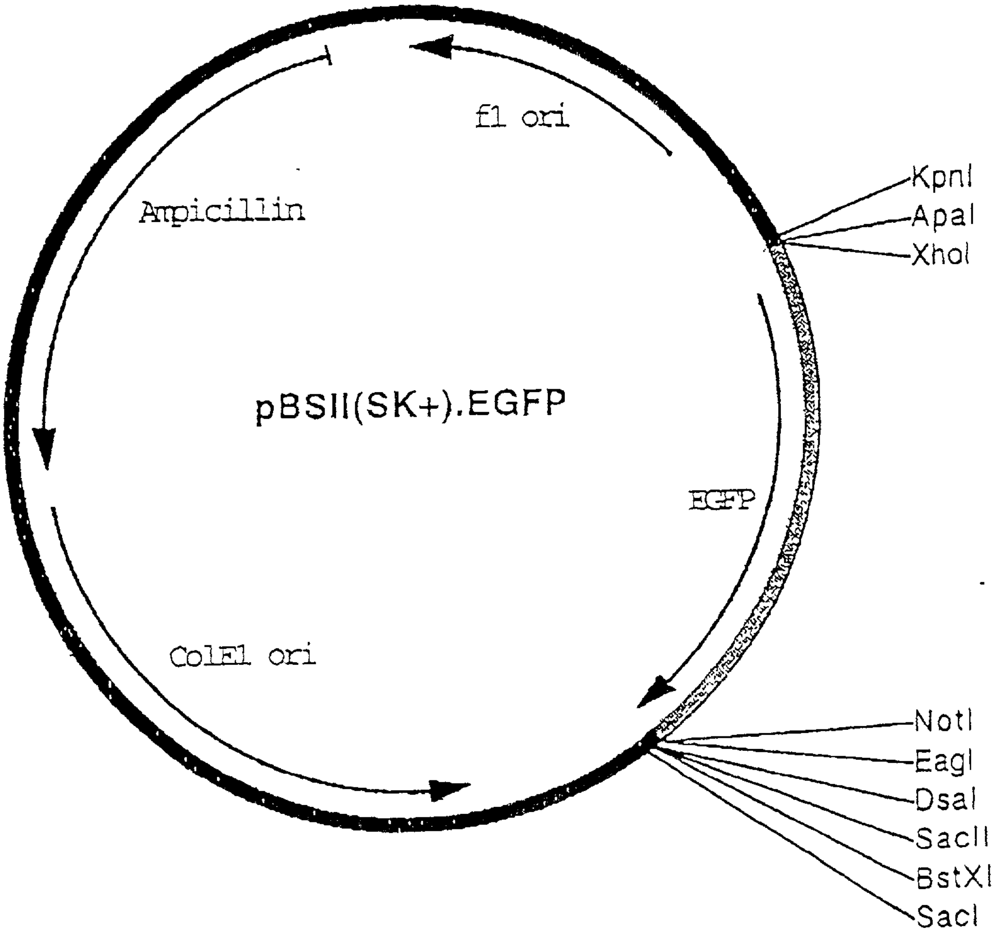

f1 ori
Ampicillin
pBSII(SK+).EGFP
EGFP
ColE1 ori
KpnI
ApaI
XhoI
NotI
EagI
DsaI
SacII
BstXI
SacI

FIGURE 6

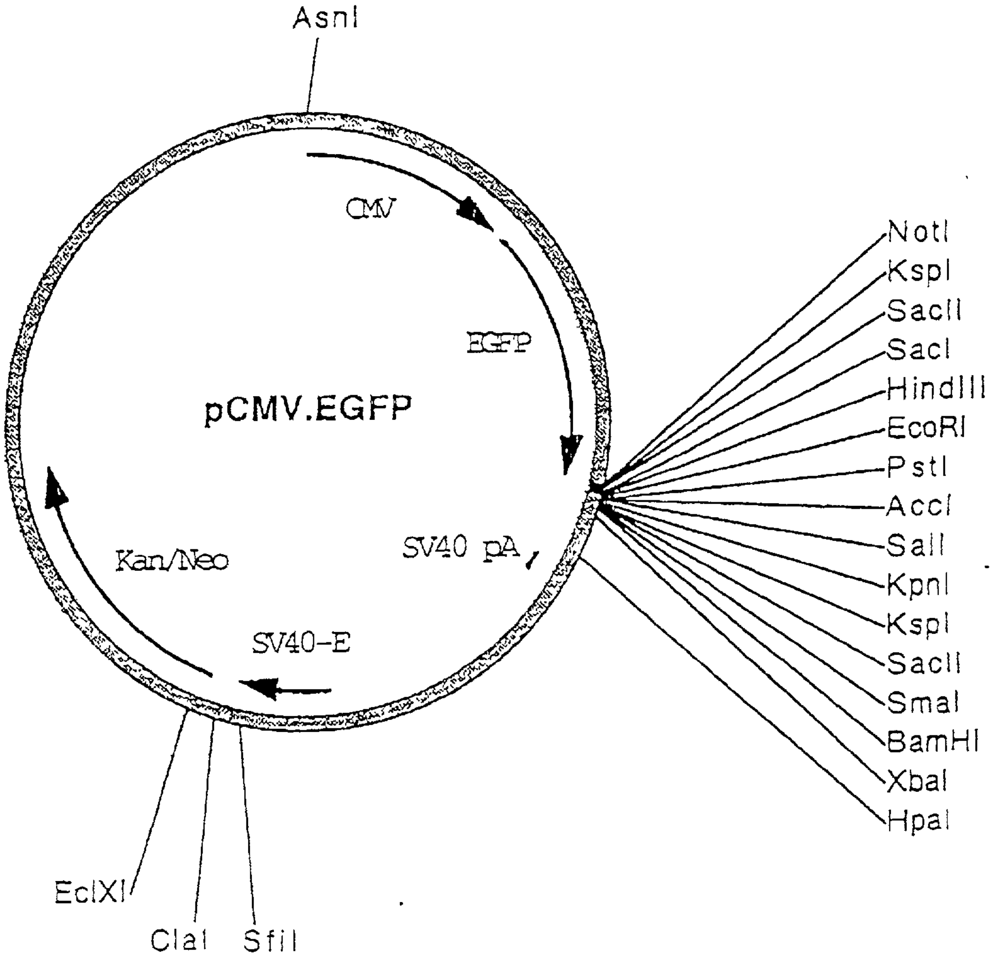

AsnI
CMV
EGFP
pCMV.EGFP
SV40 pA
Kan/Neo
SV40-E
NotI
KspI
SacII
SacI
HindIII
EcoRI
PstI
AccI
SalI
KpnI
KspI
SacII
SmaI
BamHI
XbaI
HpaI
EclXI
ClaI
SfiI

FIGURE 7

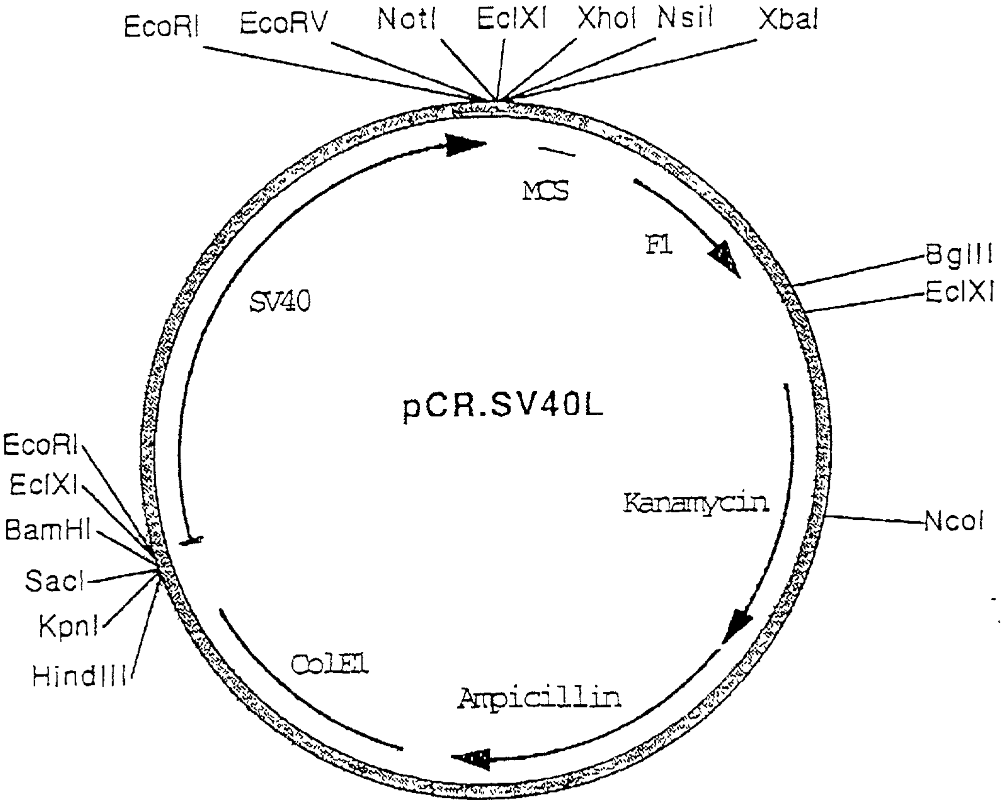

EcoRI
EcoRV
NotI
EclXI
XhoI
NsiI
XbaI
MCS
F1
BglII
EclXI
SV40
pCR.SV40L
Kanamycin
NcoI
EcoRI
EclXI
BamHI
SacI
KpnI
HindIII
ColE1
Ampicillin

FIGURE 8

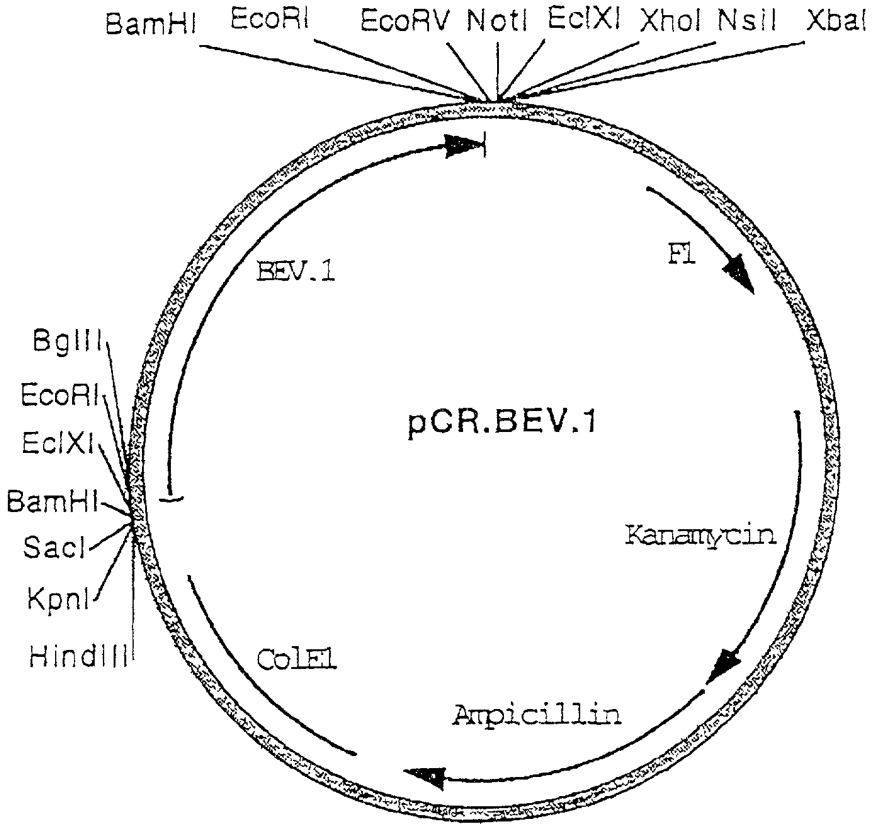

BamHI
EcoRI
EcoRV
NotI
EclXI
XhoI
NsiI
XbaI
F1
BEV.1
pCR.BEV.1
BglII
EcoRI
EclXI
BamHI
SacI
KpnI
HindIII
Kanamycin
ColE1
Ampicillin

FIGURE 9

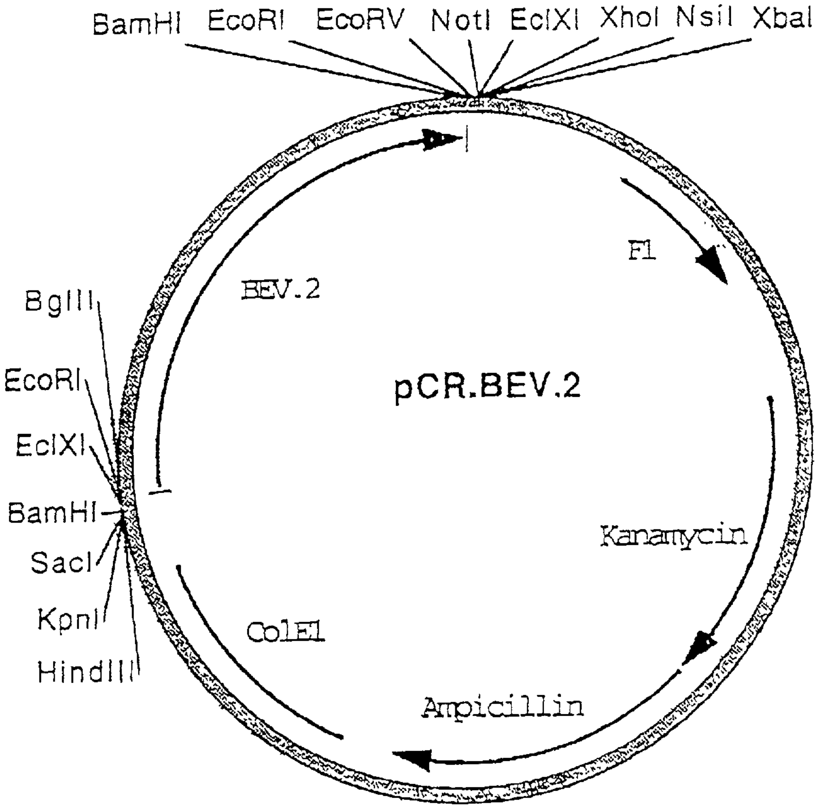

BamHI
EcoRI
EcoRV
NotI
EclXI
XhoI
NsiI
XbaI
BEV.2
F1
pCR.BEV.2
BglII
EcoRI
EclXI
BamHI
SacI
KpnI
HindIII
Kanamycin
ColE1
Ampicillin

FIGURE 10

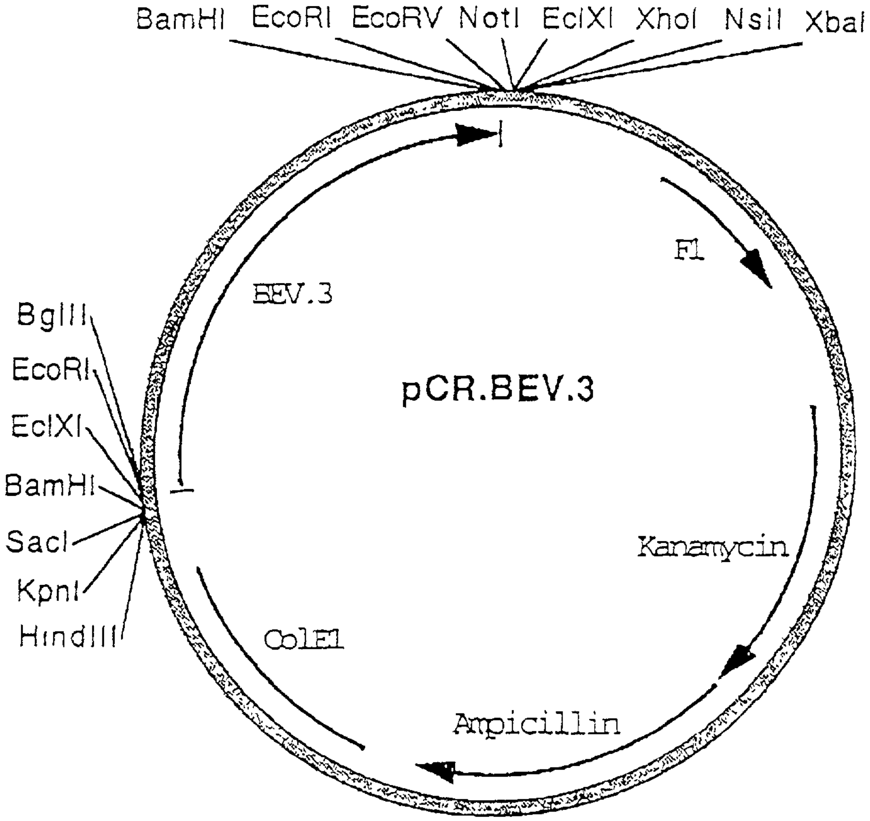

BamHI
EcoRI
EcoRV
NotI
EclXI
XhoI
NsiI
XbaI
F1
BEV.3
pCR.BEV.3
BglII
EcoRI
EclXI
BamHI
SacI
KpnI
HindIII
Kanamycin
ColE1
Ampicillin

FIGURE 11

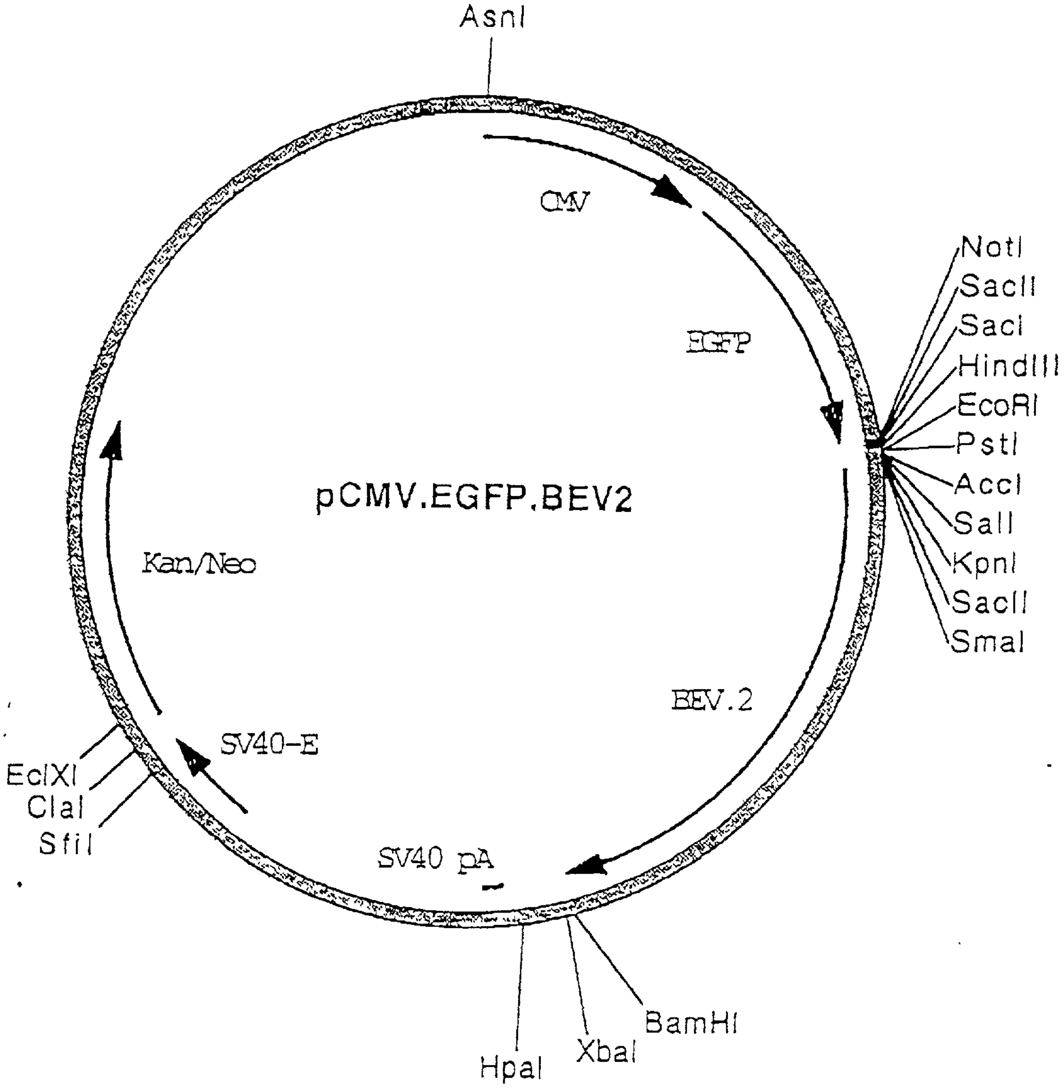

AsnI
CMV
EGFP
NotI
SacII
SacI
HindIII
EcoRI
PstI
AccI
SalI
KpnI
SacII
SmaI
pCMV.EGFP.BEV2
Kan/Neo
BEV.2
SV40-E
EclXI
ClaI
SfiI
SV40 pA
BamHI
XbaI
HpaI

FIGURE 12

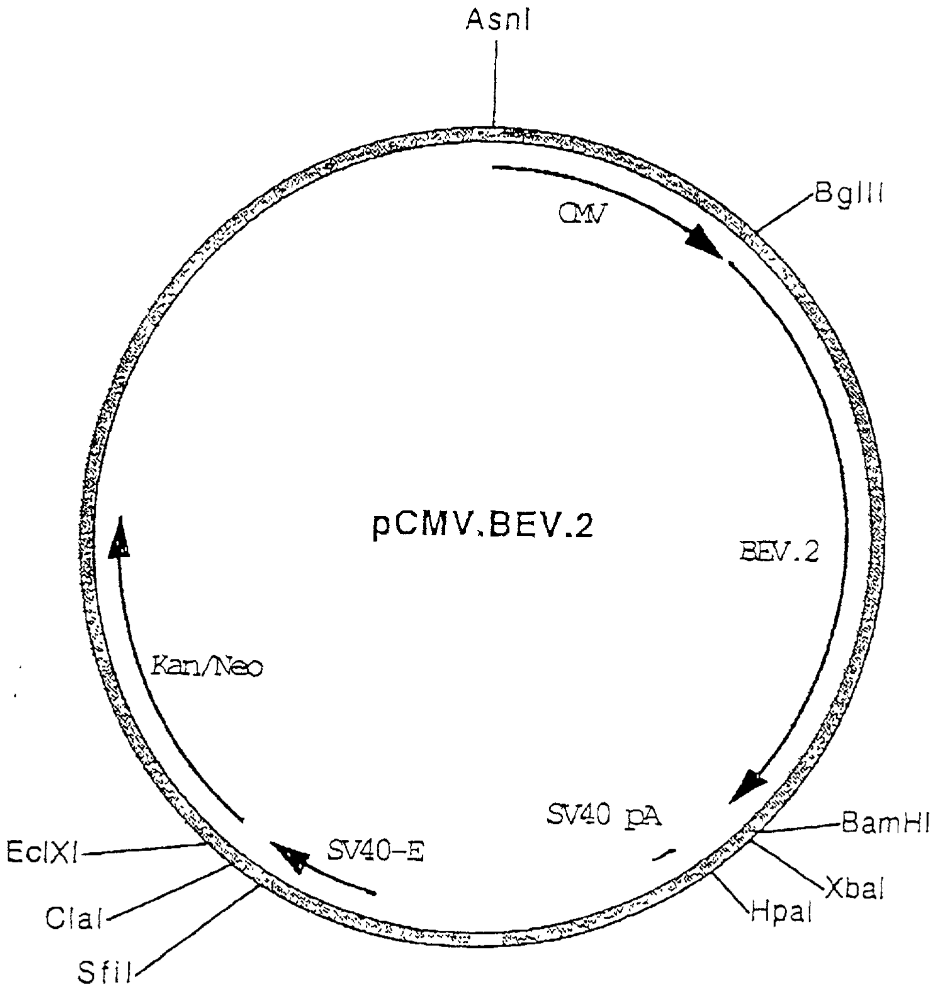

AsnI
BglII
CMV
pCMV.BEV.2
BEV.2
Kan/Neo
SV40 pA
BamHI
XbaI
HpaI
EclXI
SV40-E
ClaI
SfiI

FIGURE 13

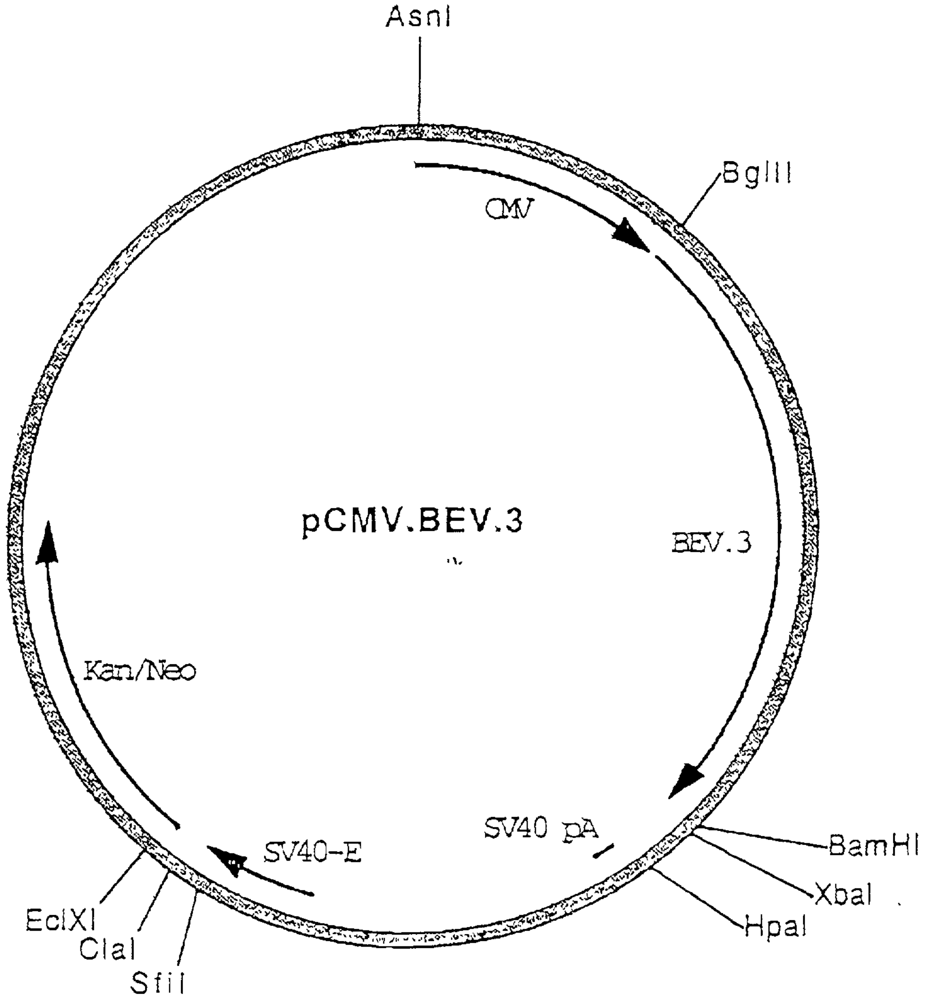

AsnI
BglII
CMV
pCMV.BEV.3
BEV.3
Kan/Neo
SV40 pA
SV40-E
BamHI
XbaI
HpaI
EclXI
ClaI
SfiI

FIGURE 14

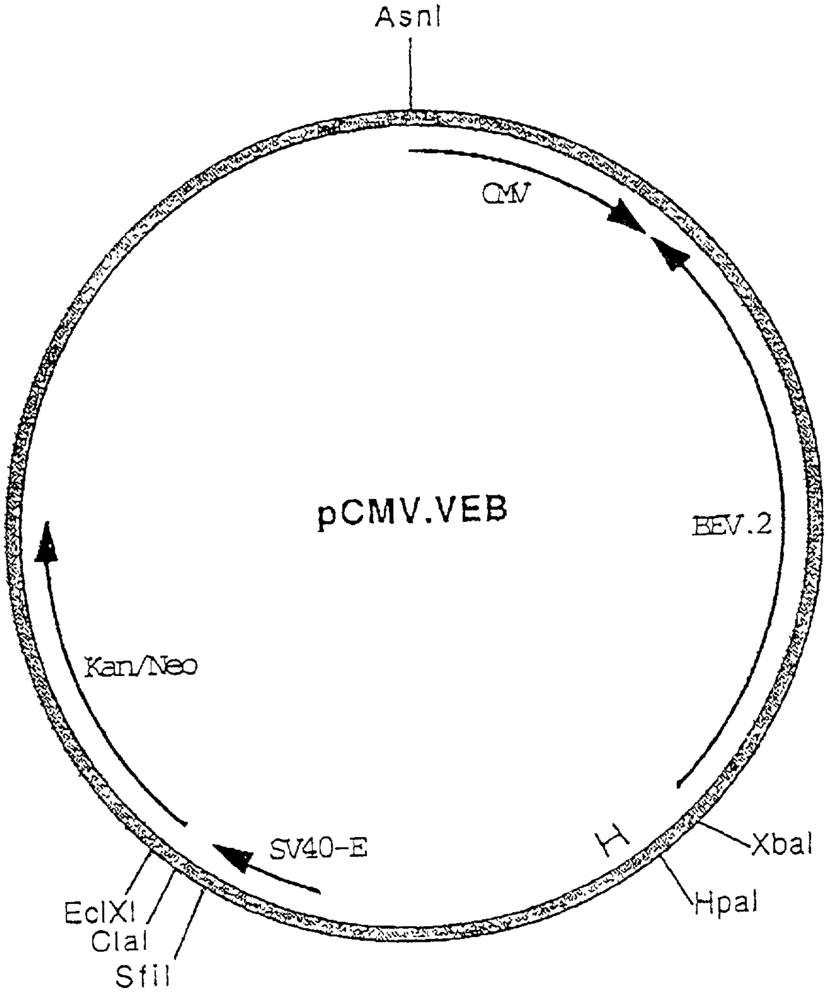

AsnI
CMV
pCMV.VEB
BEV.2
Kan/Neo
SV40-E
XbaI
HpaI
EclXI
ClaI
SfiI

FIGURE 15

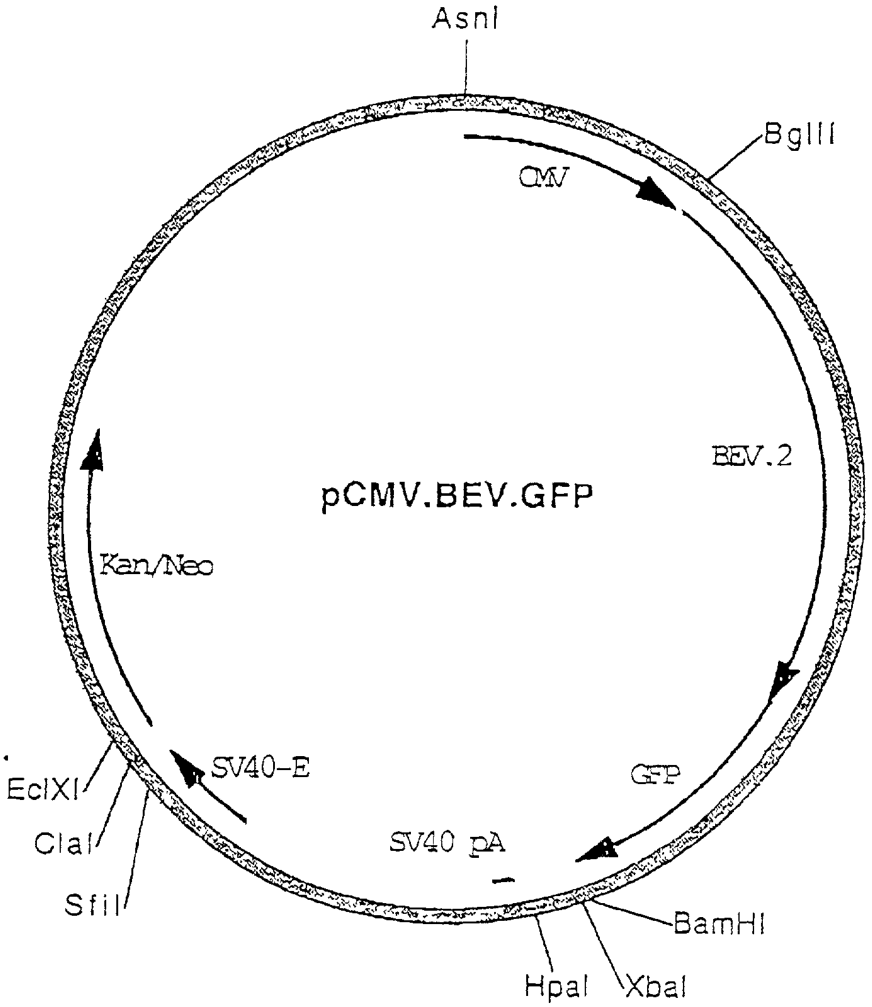

AsnI
BglII
CMV
BEV.2
pCMV.BEV.GFP
Kan/Neo
GFP
SV40-E
SV40 pA
EclXI
ClaI
SfiI
BamHI
HpaI
XbaI

FIGURE 16

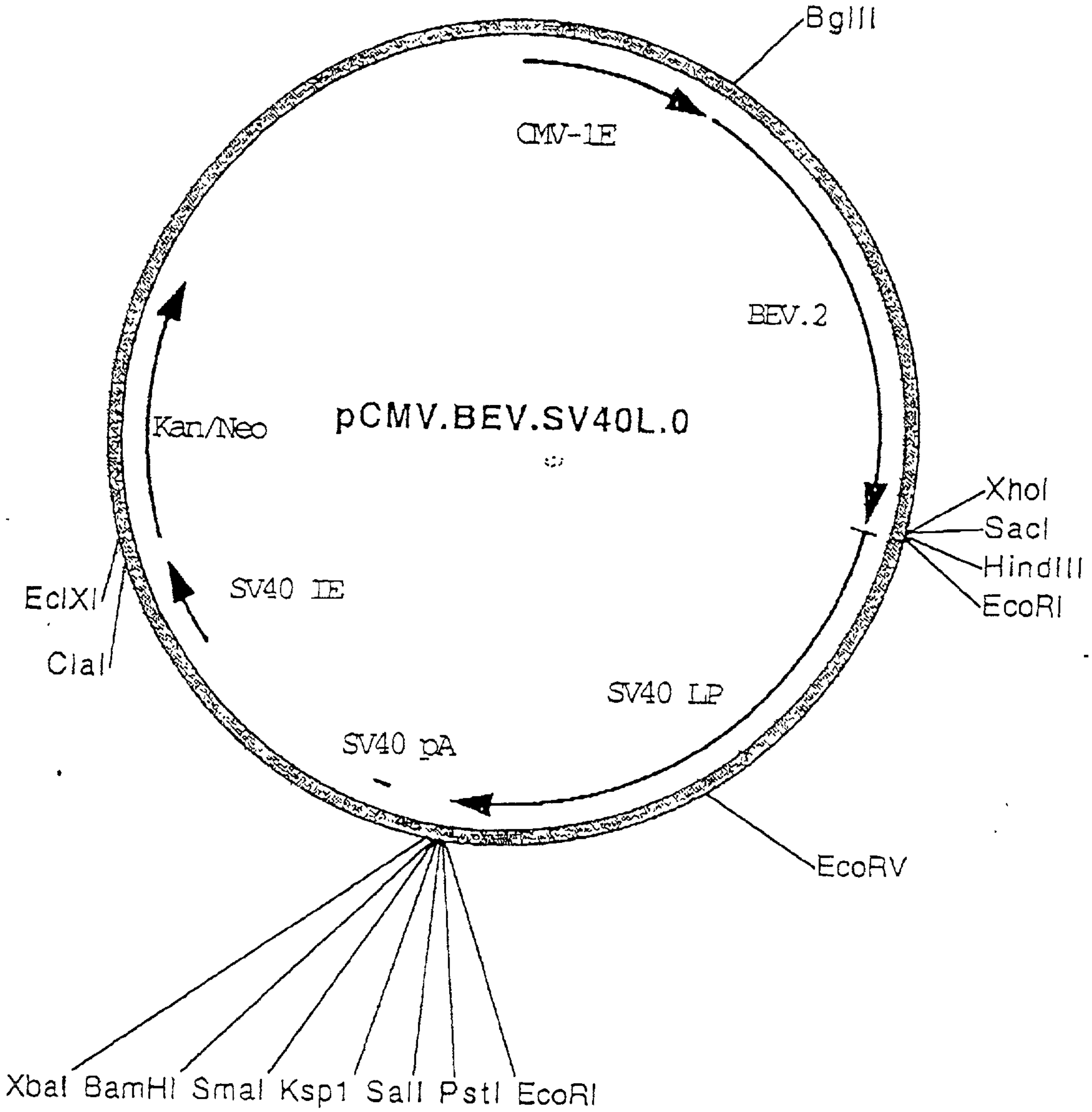
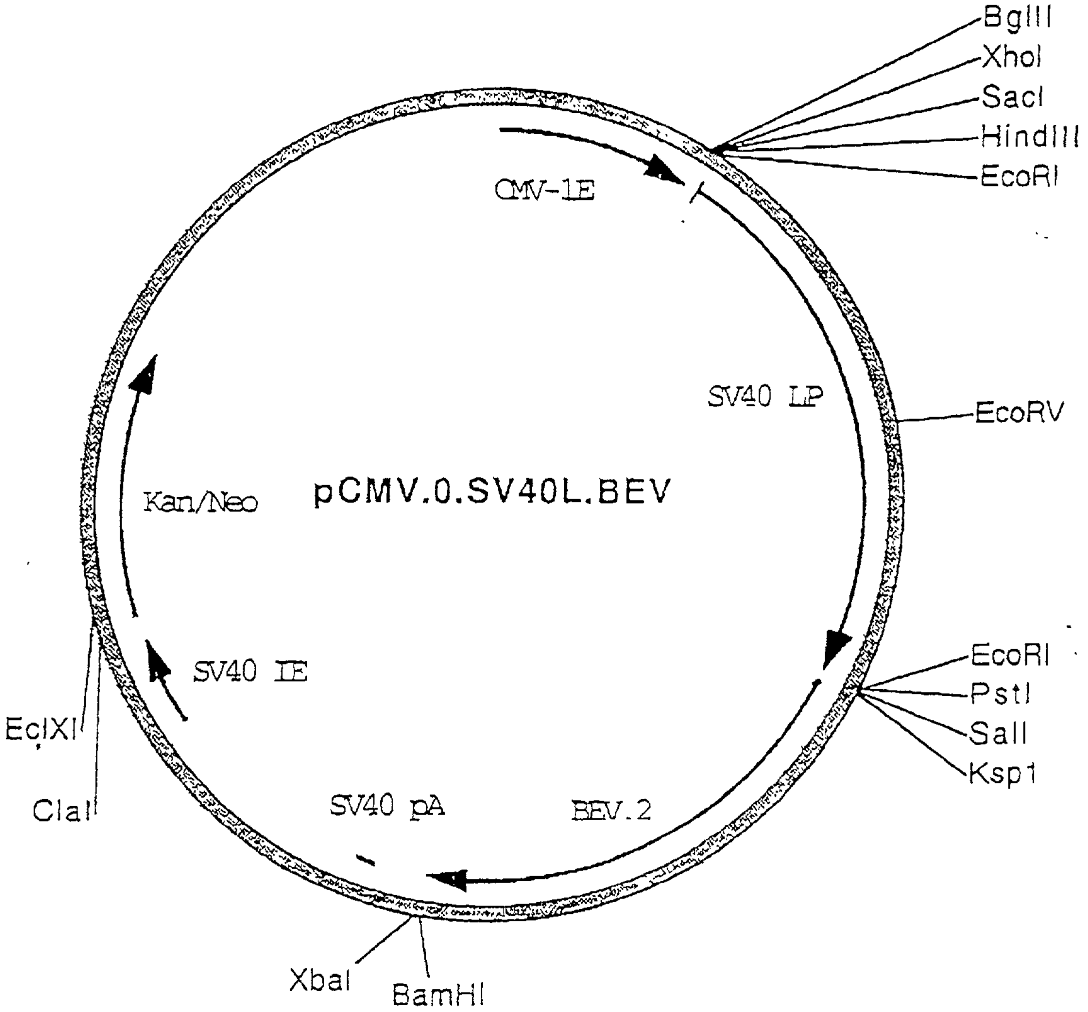

BglII
CMV-IE
BEV.2
pCMV.BEV.SV40L.0
Kan/Neo
XhoI
SacI
HindIII
EcoRI
SV40 IE
EclXI
ClaI
SV40 LP
SV40 pA
EcoRV
XbaI BamHI SmaI Ksp1 SalI PstI EcoRI

FIGURE 17



pCMV.0.SV40L.BEV
BglII
XhoI
SacI
HindIII
EcoRI
CMV-1E
SV40 LP
EcoRV
EcoRI
PstI
SalI
Ksp1
BEV.2
SV40 pA
XbaI
BamHI
SV40 IE
EclXI
ClaI
Kan/Neo

FIGURE 18

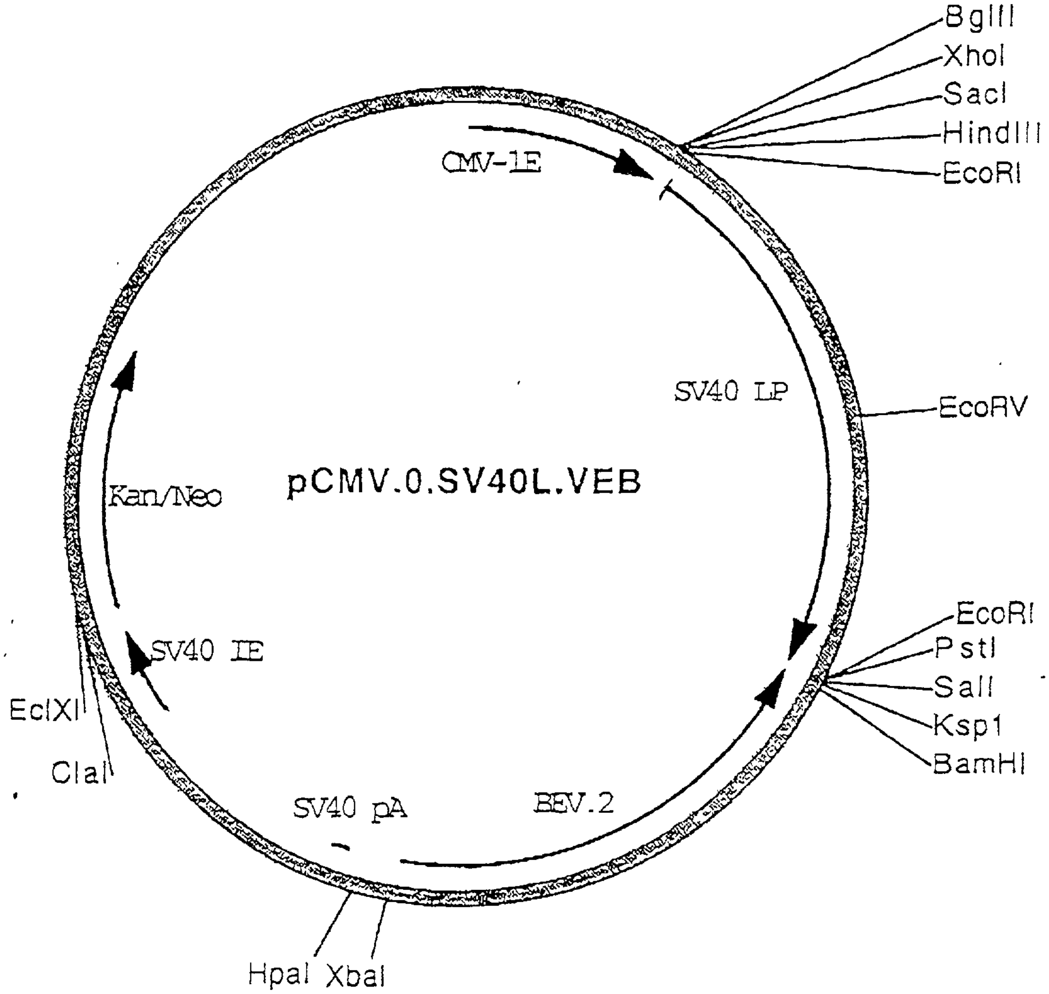

BglII
XhoI
SacI
HindIII
EcoRI
CMV-1E
SV40 LP
EcoRV
pCMV.0.SV40L.VEB
Kan/Neo
SV40 IE
EcoRI
PstI
SalI
Ksp1
BamHI
EclXI
ClaI
SV40 pA
BEV.2
HpaI
XbaI

FIGURE 19

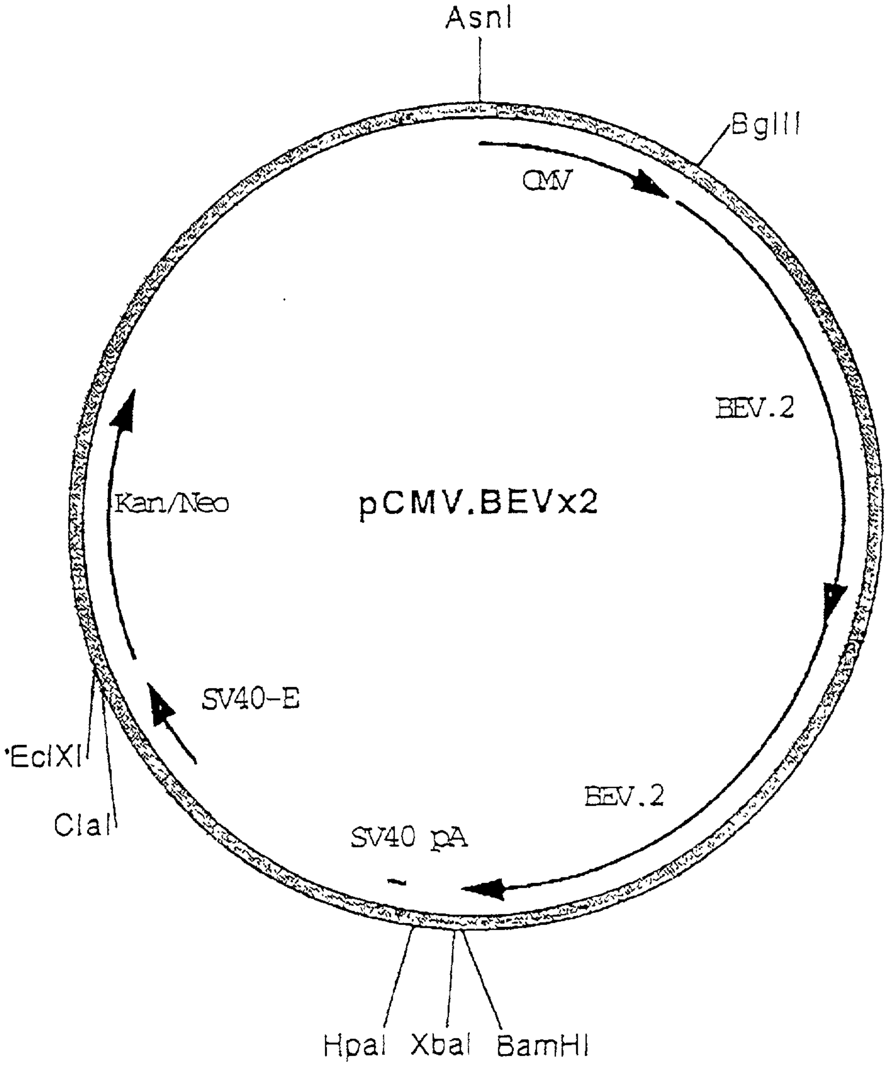

AsnI
BglII
CMV
BEV.2
pCMV.BEVx2
Kan/Neo
SV40-E
'EclXI
ClaI
BEV.2
SV40 pA
HpaI
XbaI
BamHI

FIGURE 20

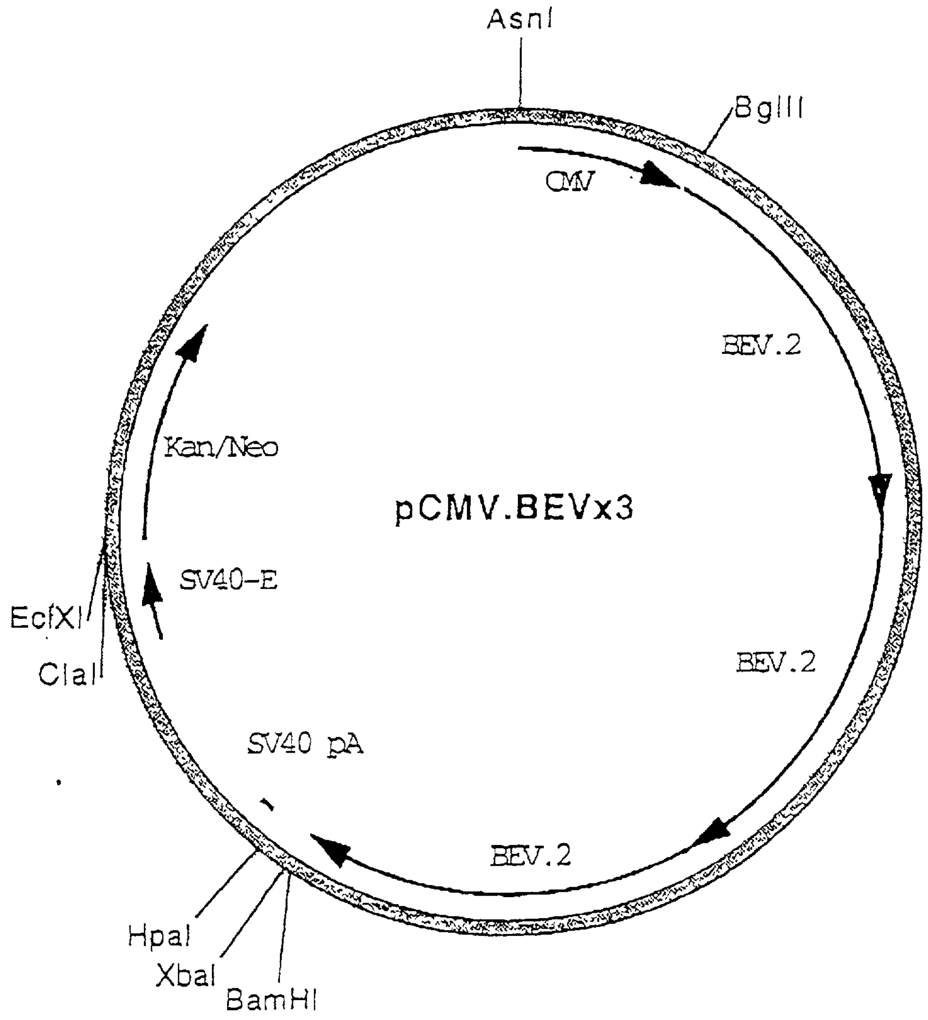

AsnI
BglII
CMV
BEV.2
BEV.2
BEV.2
pCMV.BEVx3
Kan/Neo
SV40-E
EcfXI
ClaI
SV40 pA
HpaI
XbaI
BamHI

FIGURE 21

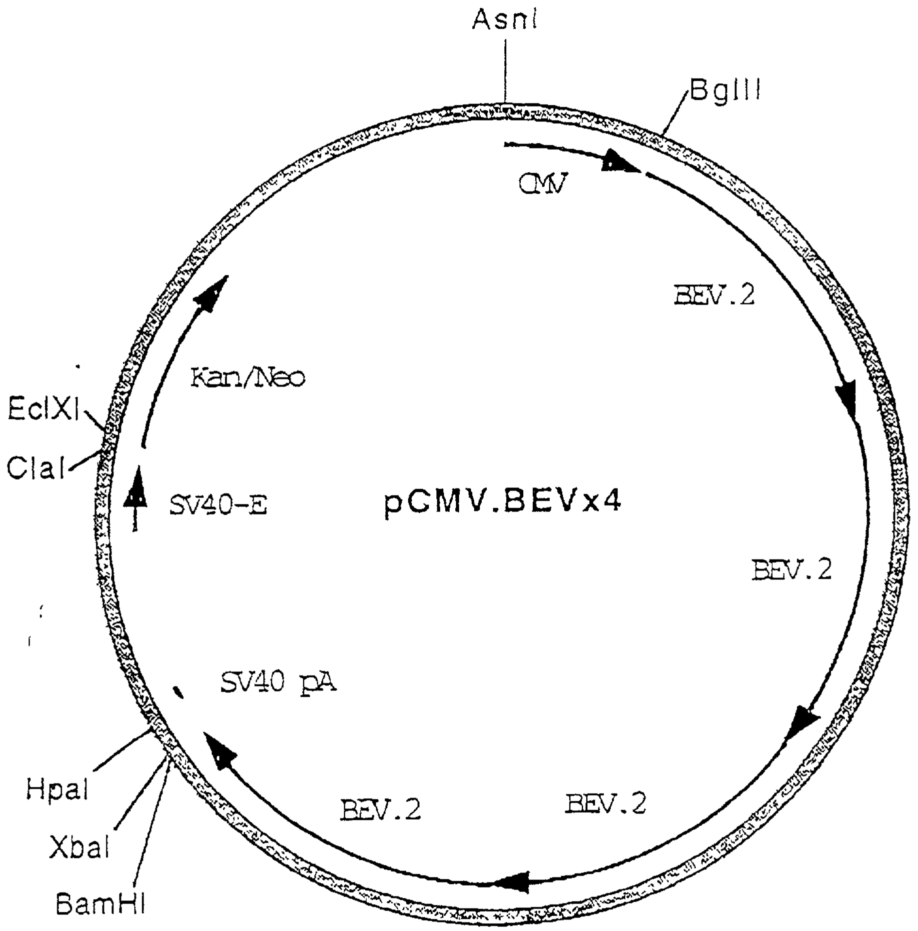

AsnI
BglII
CMV
BEV.2
BEV.2
BEV.2
BEV.2
SV40 pA
SV40-E
Kan/Neo
EclXI
ClaI
HpaI
XbaI
BamHI
pCMV.BEVx4

FIGURE 22

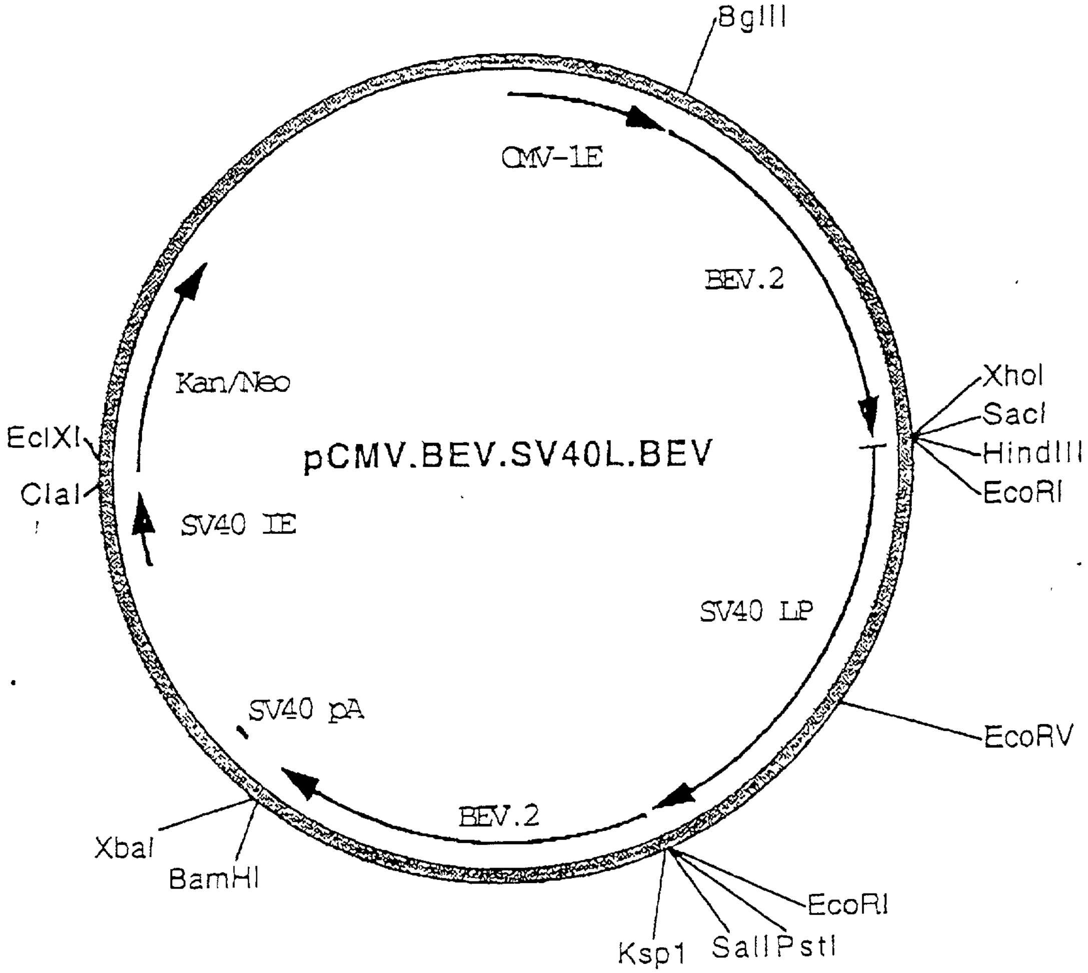

BglII
CMV-1E
BEV.2
XhoI
SacI
HindIII
EcoRI
pCMV.BEV.SV40L.BEV
Kan/Neo
EclXI
ClaI
SV40 IE
SV40 LP
EcoRV
SV40 pA
BEV.2
XbaI
BamHI
EcoRI
Ksp1
SalIPstI

FIGURE 23

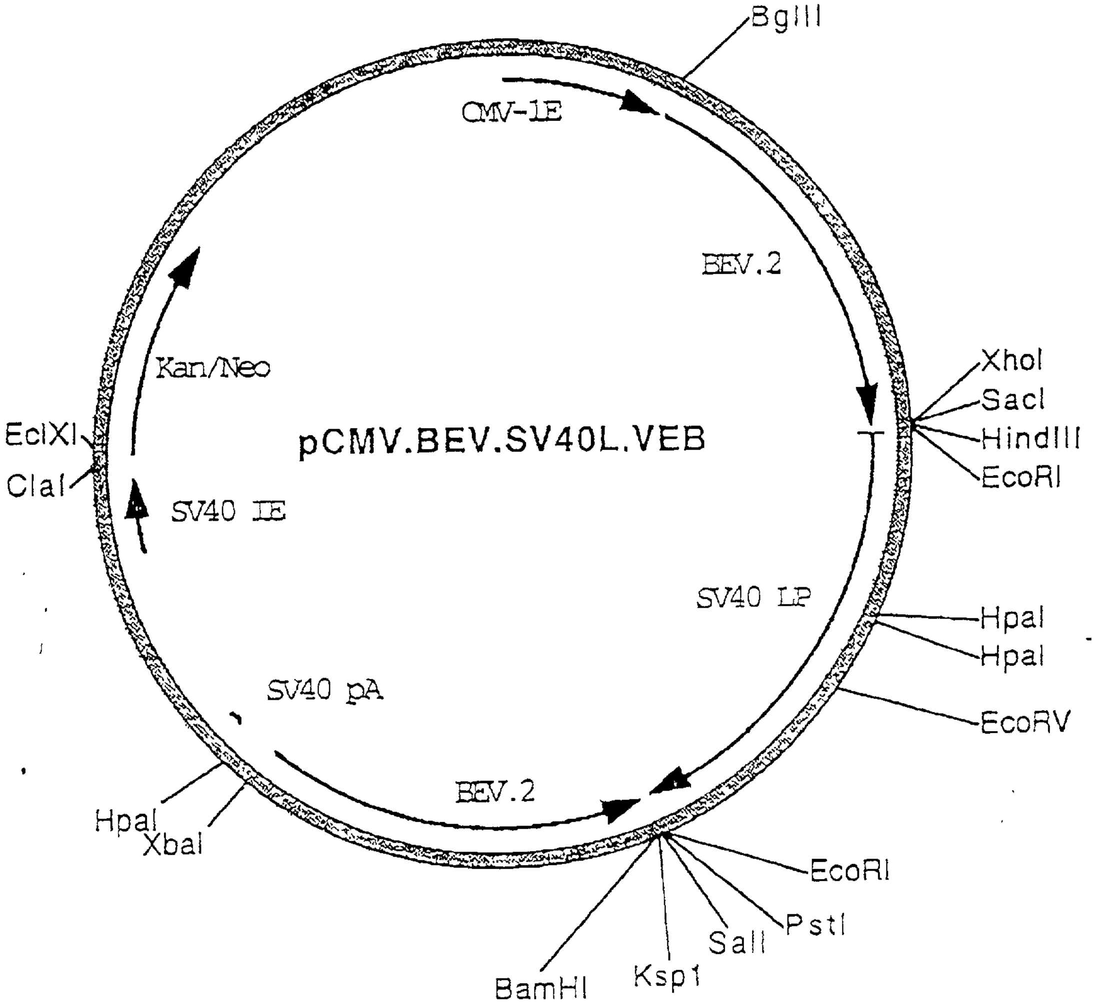

BglII
CMV-IE
BEV.2
XhoI
SacI
HindIII
EcoRI
Kan/Neo
pCMV.BEV.SV40L.VEB
EclXI
ClaI
SV40 IE
SV40 LP
HpaI
HpaI
EcoRV
SV40 pA
BEV.2
HpaI
XbaI
EcoRI
PstI
SalI
Ksp1
BamHI

FIGURE 24

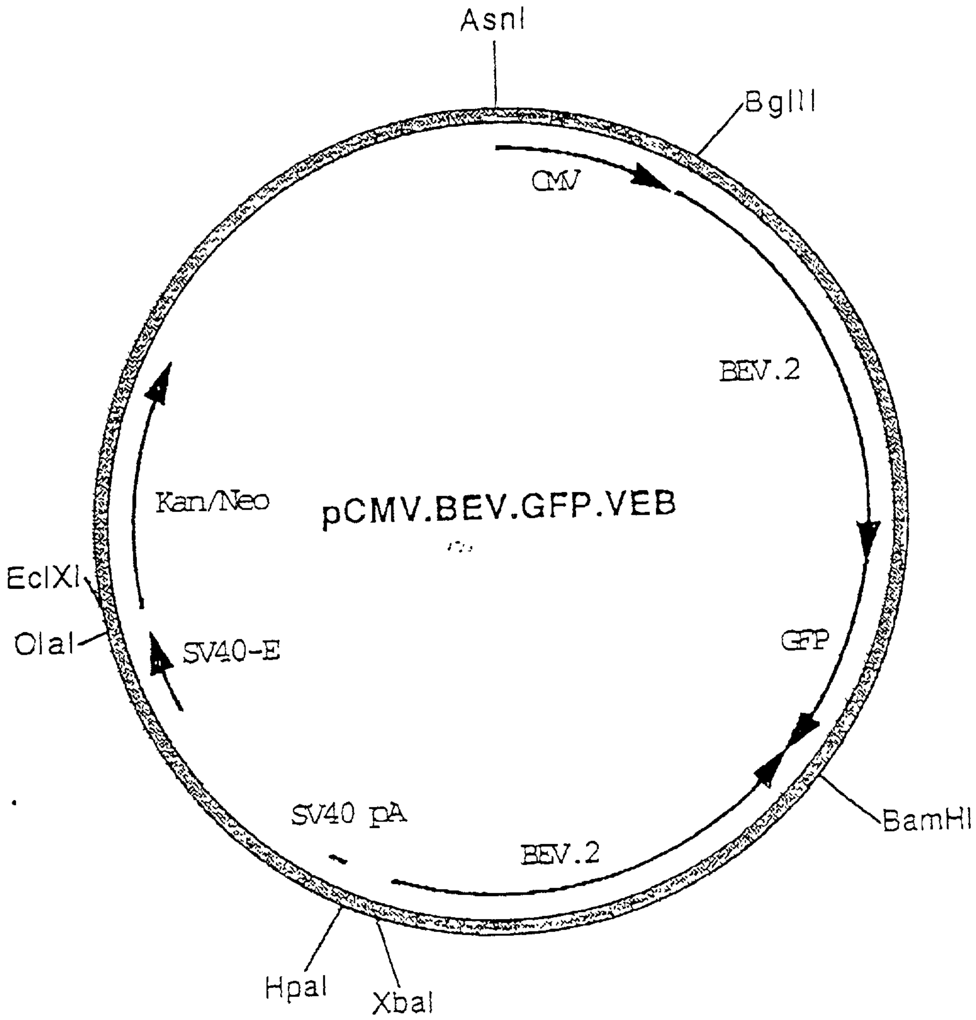

AsnI
BglII
CMV
BEV.2
pCMV.BEV.GFP.VEB
Kan/Neo
EclXI
ClaI
SV40-E
GFP
BamHI
SV40 pA
BEV.2
HpaI
XbaI

FIGURE 25

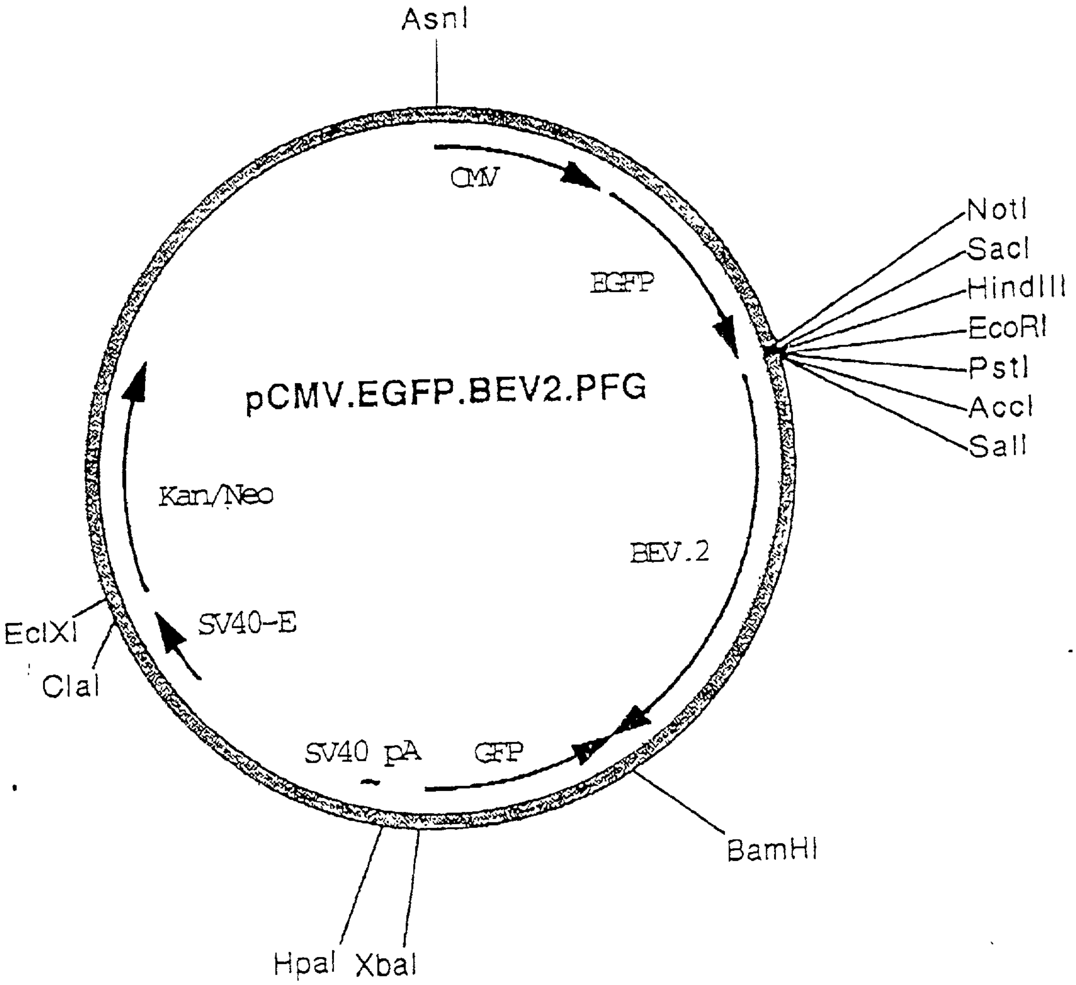

AsnI
CMV
EGFP
NotI
SacI
HindIII
EcoRI
PstI
AccI
SalI
pCMV.EGFP.BEV2.PFG
Kan/Neo
BEV.2
SV40-E
EclXI
ClaI
SV40 pA
GFP
BamHI
HpaI
XbaI

FIGURE 26

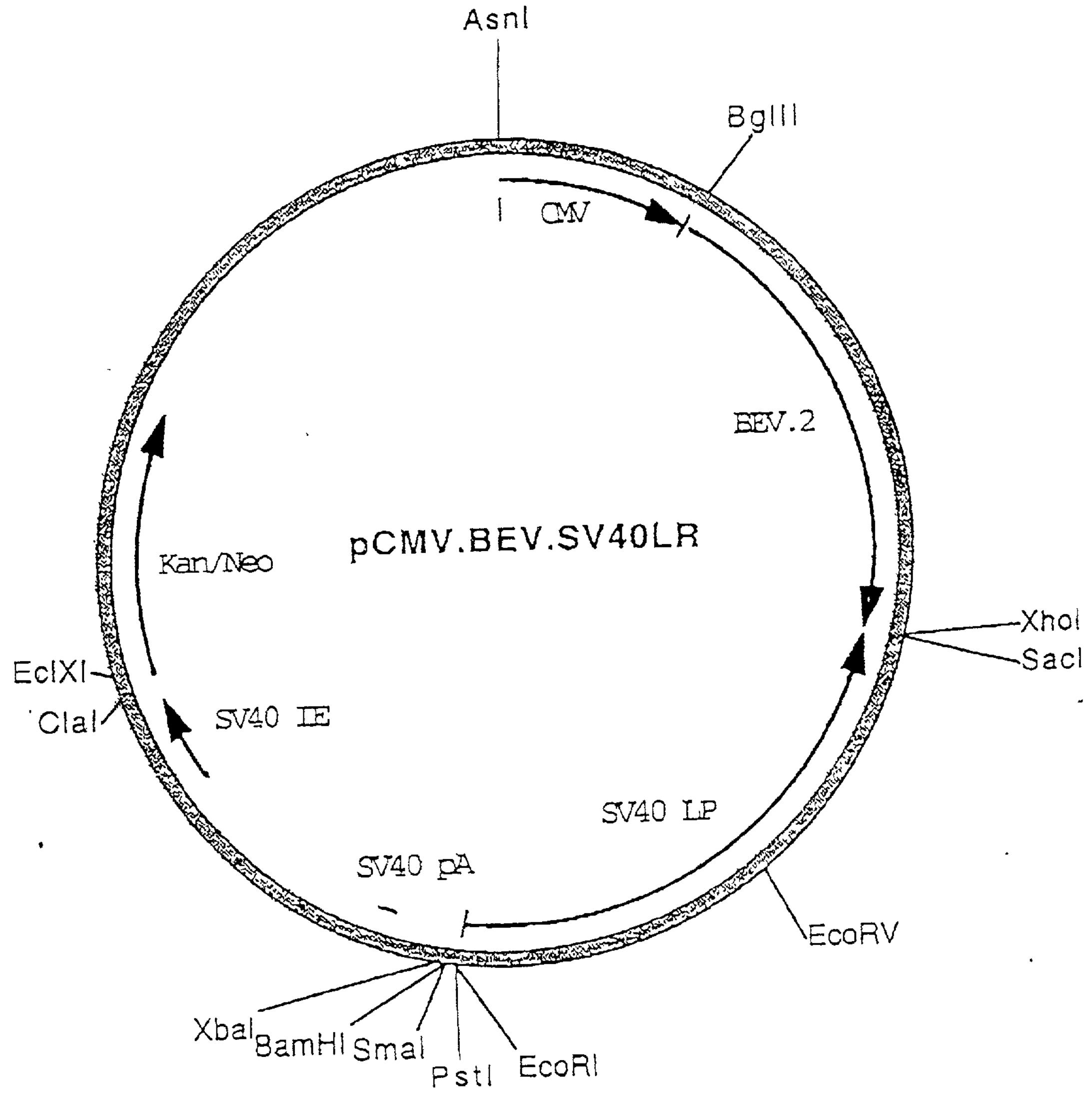

AsnI
BglII
CMV
BEV.2
pCMV.BEV.SV40LR
Kan/Neo
XhoI
SacI
EclXI
ClaI
SV40 IE
SV40 LP
SV40 pA
EcoRV
XbaI
BamHI
SmaI
PstI
EcoRI

FIGURE 27

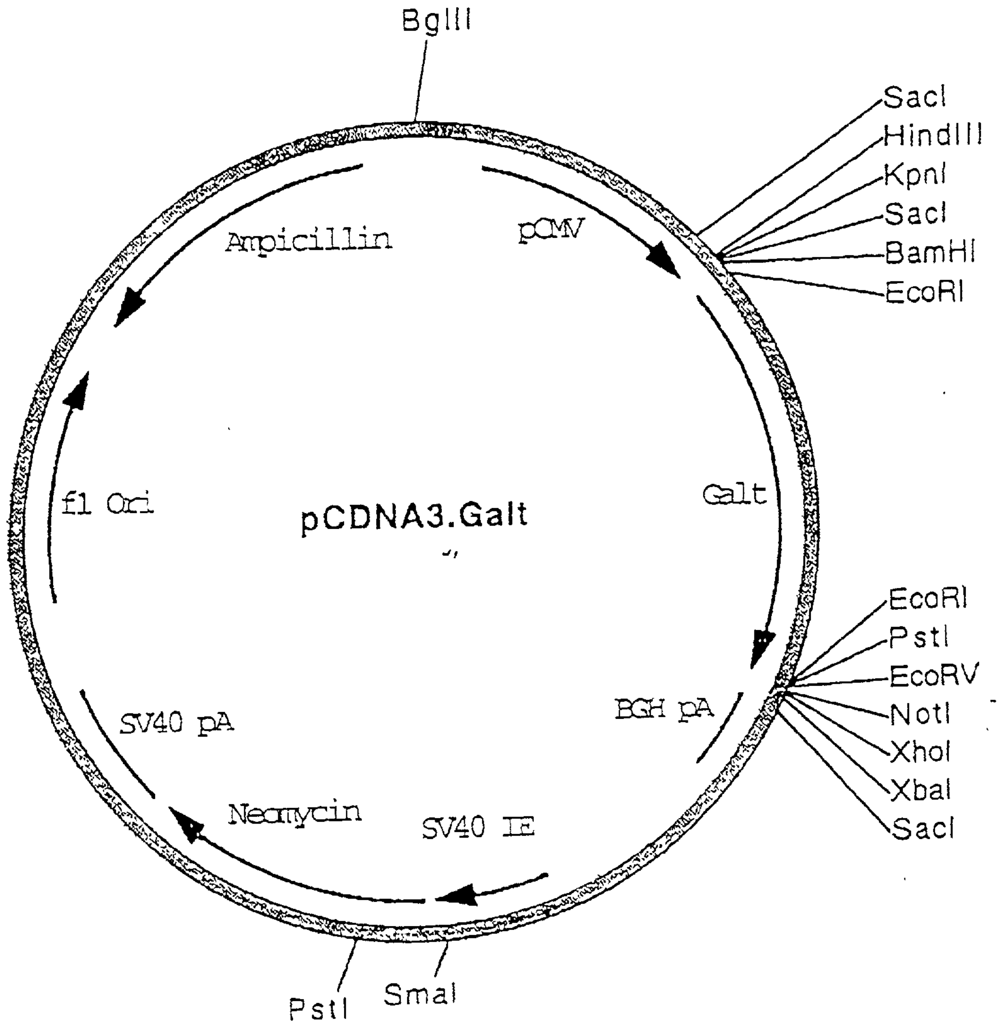

BglII
SacI
HindIII
KpnI
SacI
BamHI
EcoRI
Ampicillin
pCMV
Galt
f1 Ori
pCDNA3.Galt
EcoRI
PstI
EcoRV
NotI
XhoI
XbaI
SacI
BGH pA
SV40 pA
Neomycin
SV40 IE
PstI
SmaI

FIGURE 28

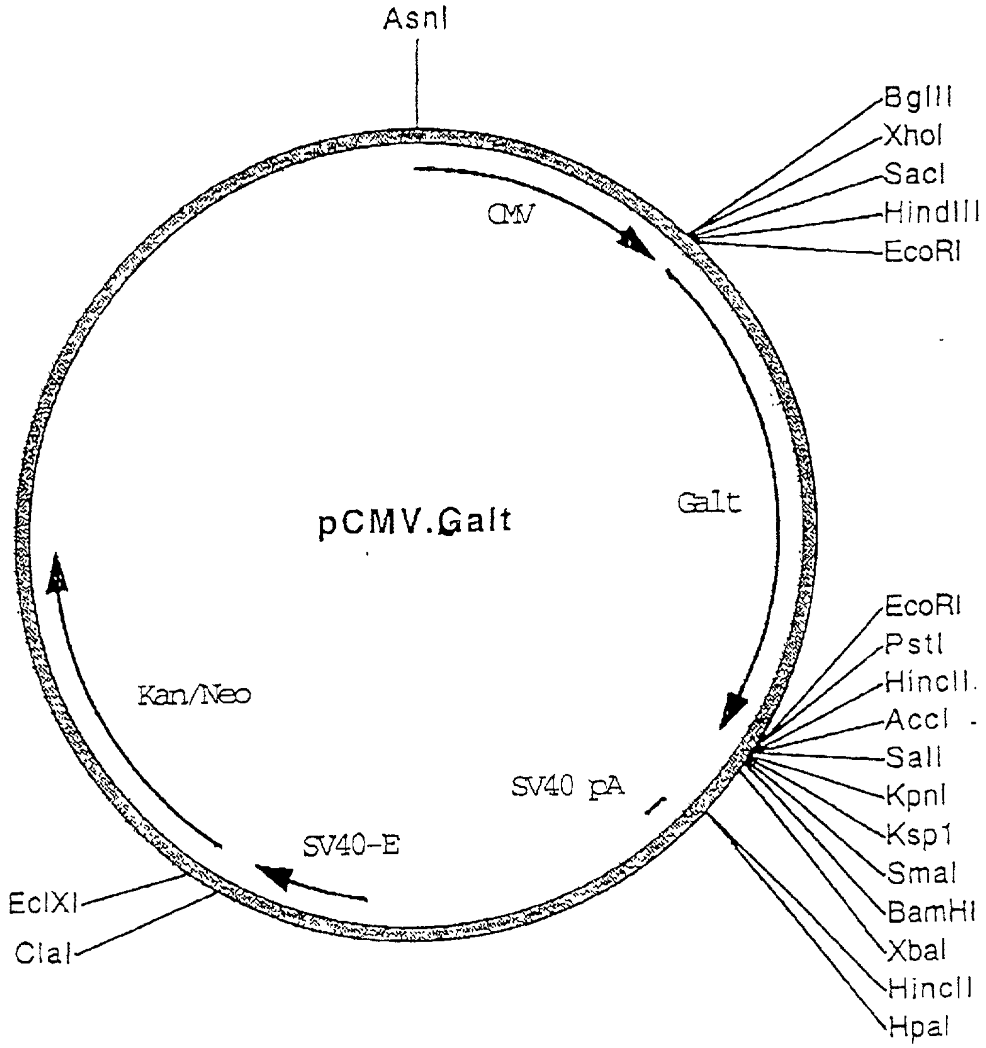

AsnI
BglII
XhoI
SacI
HindIII
EcoRI
CMV
Galt
pCMV.Galt
EcoRI
PstI
HincII
AccI
SalI
KpnI
Ksp1
SmaI
BamHI
XbaI
HincII
HpaI
SV40 pA
SV40-E
Kan/Neo
EclXI
ClaI

FIGURE 29

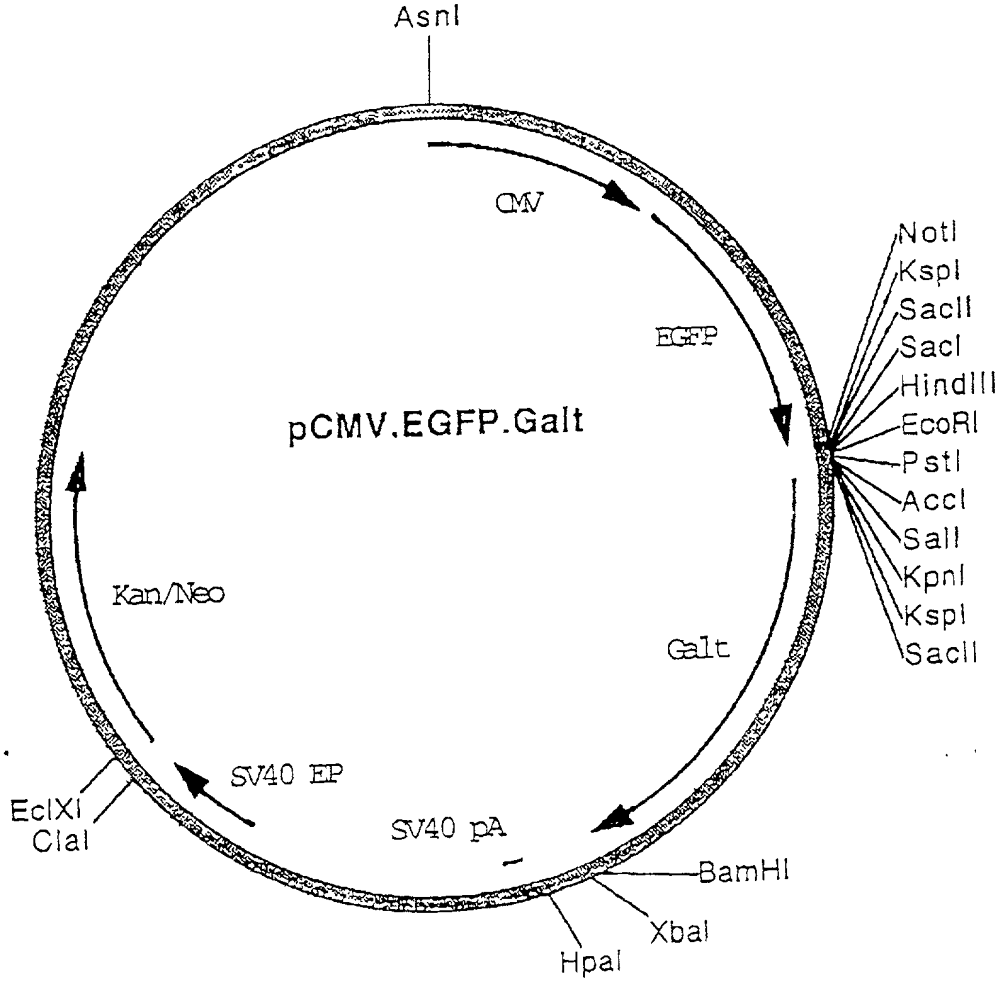

AsnI
CMV
EGFP
pCMV.EGFP.Galt
NotI
KspI
SacII
SacI
HindIII
EcoRI
PstI
AccI
SalI
KpnI
KspI
SacII
Galt
Kan/Neo
SV40 EP
SV40 pA
EclXI
ClaI
BamHI
XbaI
HpaI

FIGURE 30

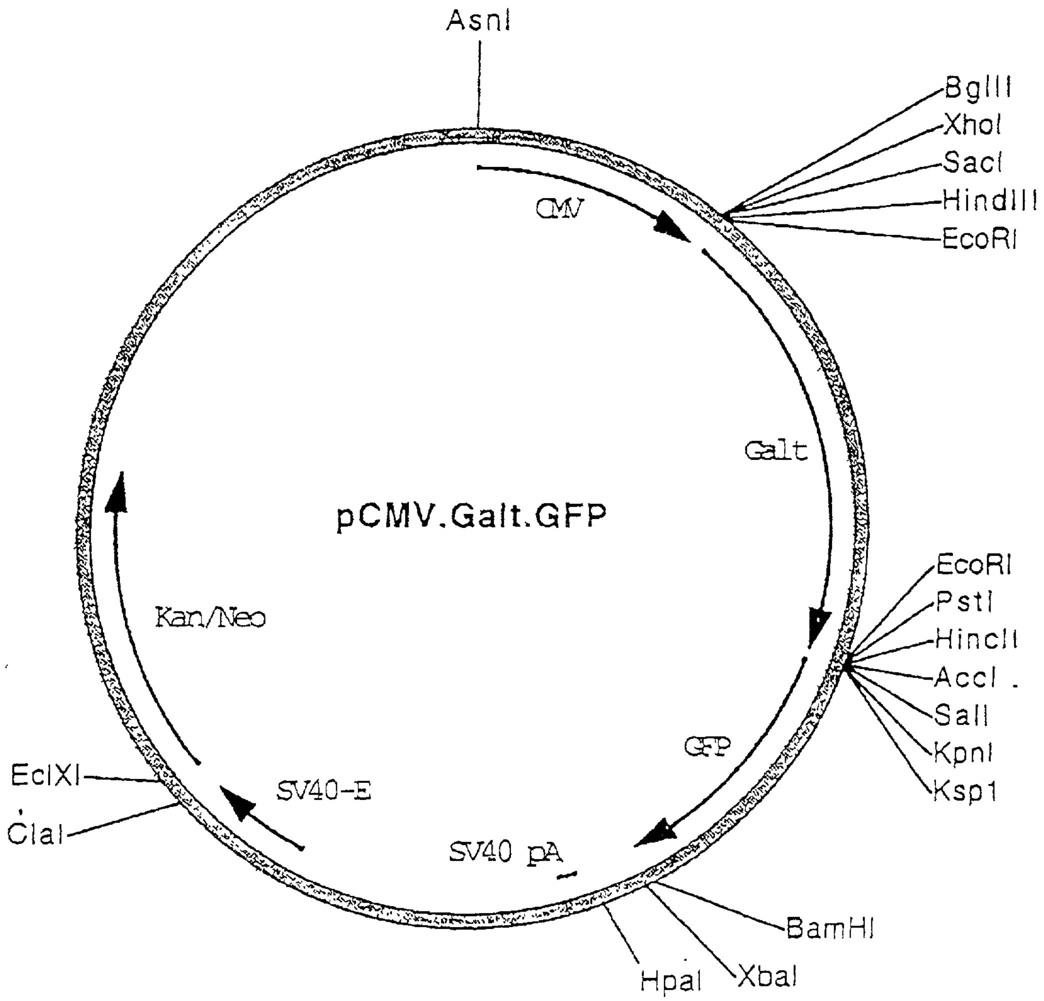
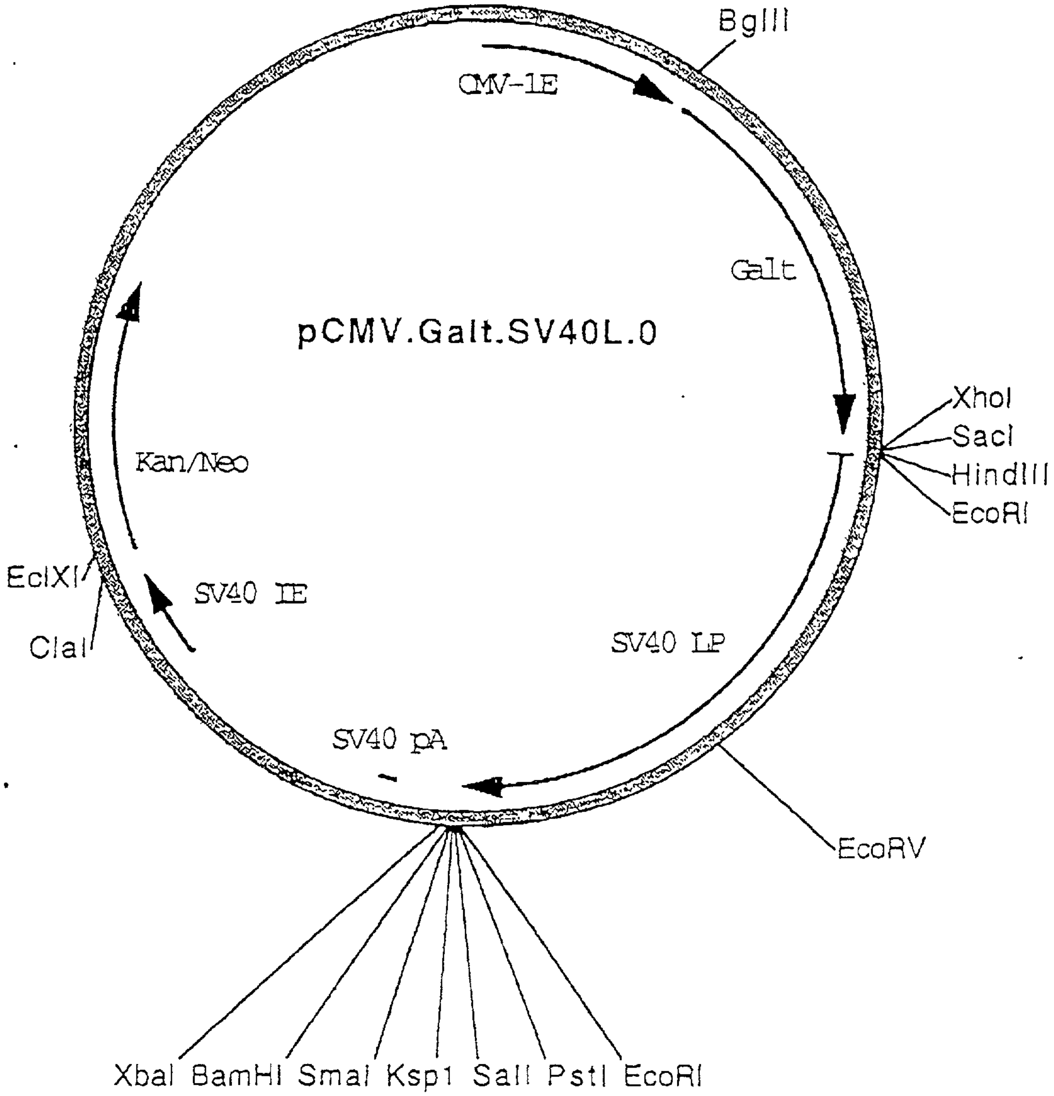

AsnI
BglII
XhoI
SacI
HindIII
EcoRI
CMV
Galt
pCMV.Galt.GFP
EcoRI
PstI
HincII
AccI
SalI
KpnI
Ksp1
GFP
Kan/Neo
EclXI
ClaI
SV40-E
SV40 pA
BamHI
XbaI
HpaI

FIGURE 31



pCMV.Galt.SV40L.0
BglII
CMV-1E
Galt
XhoI
SacI
HindIII
EcoRI
SV40 LP
EcoRV
SV40 pA
SV40 IE
Kan/Neo
EclXI
ClaI
XbaI
BamHI
SmaI
Ksp1
SalI
PstI
EcoRI

FIGURE 32

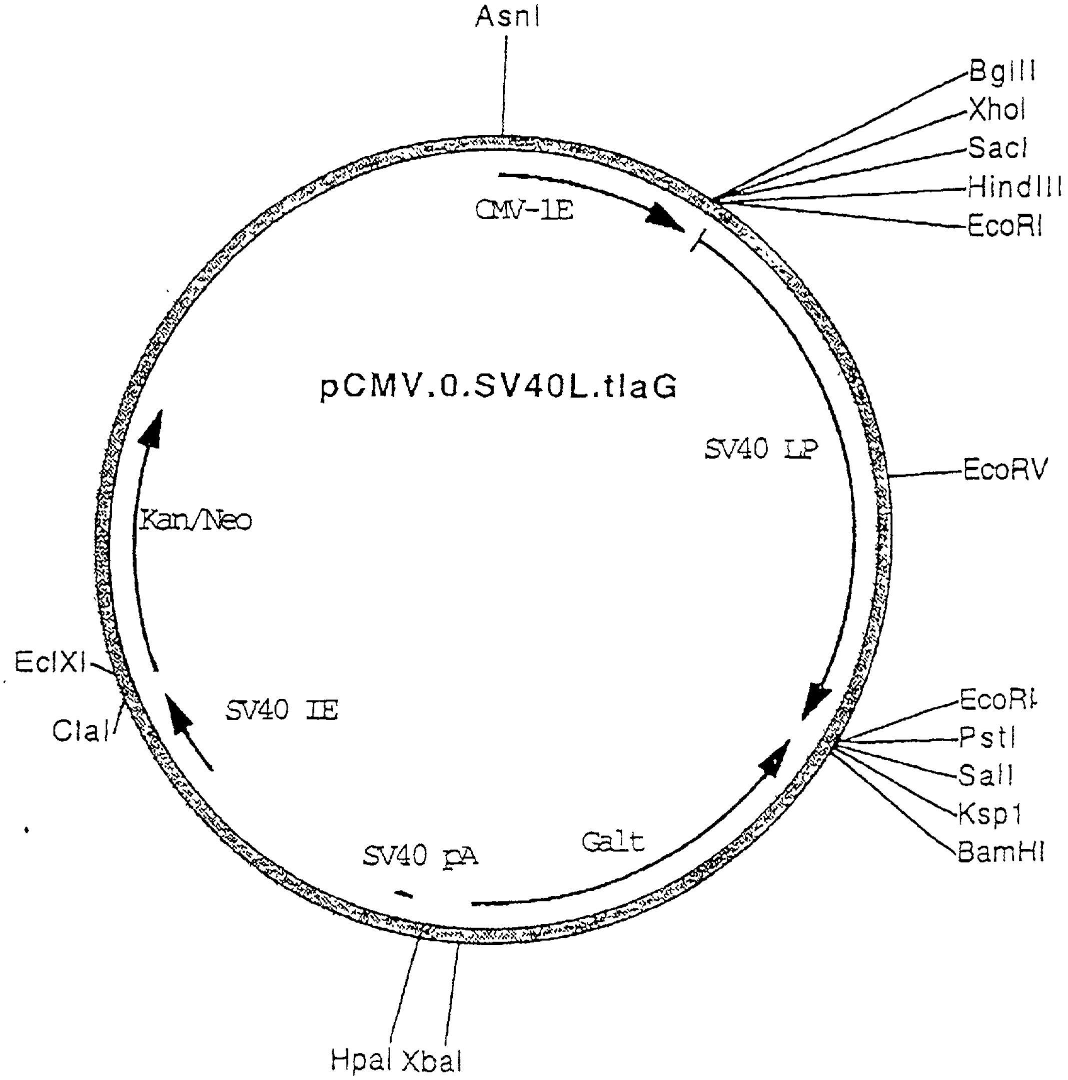

Asnl
BglII
XhoI
SacI
HindIII
EcoRI
CMV-1E
pCMV.0.SV40L.tlaG
SV40 LP
EcoRV
Kan/Neo
EclXI
ClaI
SV40 IE
EcoRI
PstI
SalI
Ksp1
BamHI
SV40 pA
Galt
HpaI
XbaI

FIGURE 33

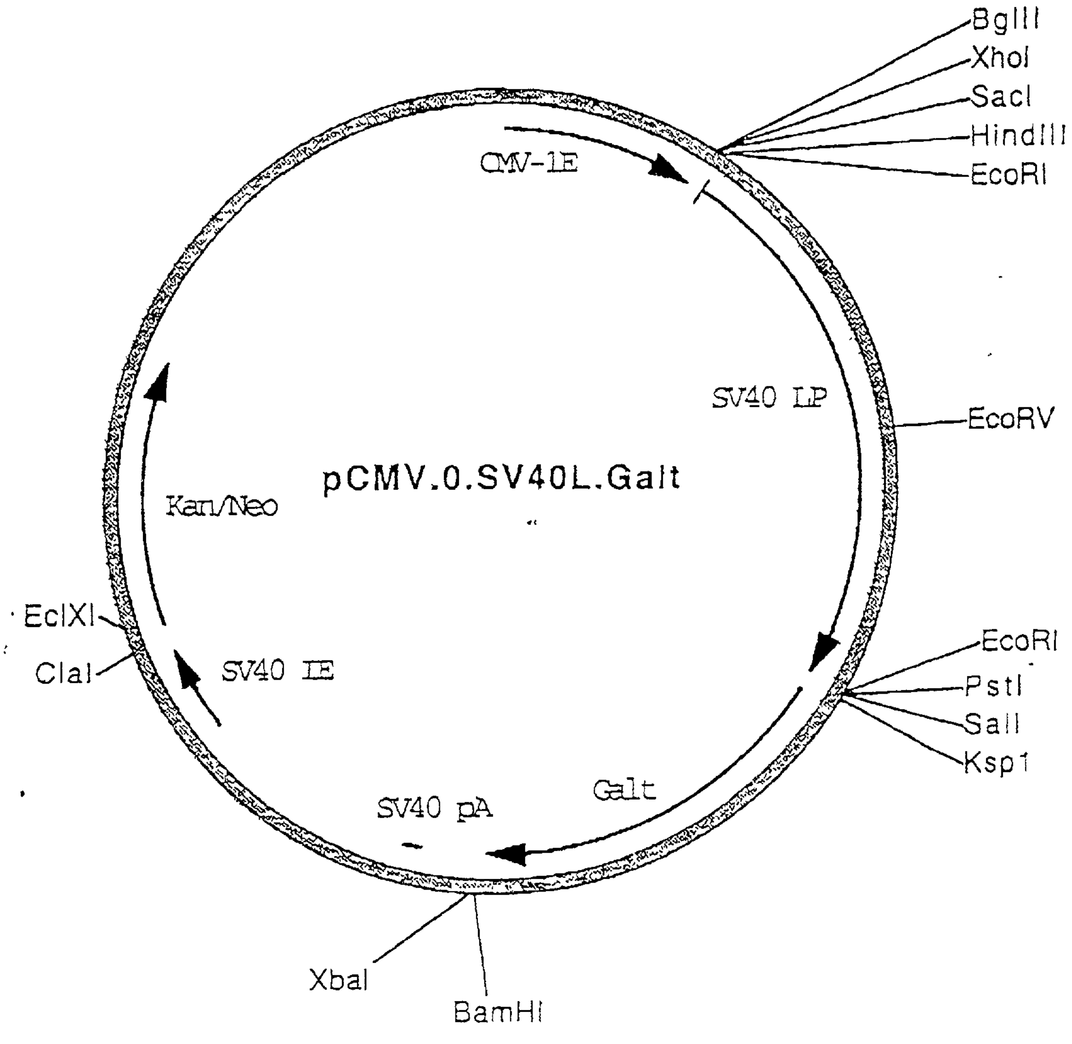

BglII
XhoI
SacI
HindIII
EcoRI
CMV-IE
SV40 LP
EcoRV
pCMV.0.SV40L.Galt
Kan/Neo
EclXI
ClaI
SV40 IE
EcoRI
PstI
SalI
Ksp1
Galt
SV40 pA
XbaI
BamHI

FIGURE 34

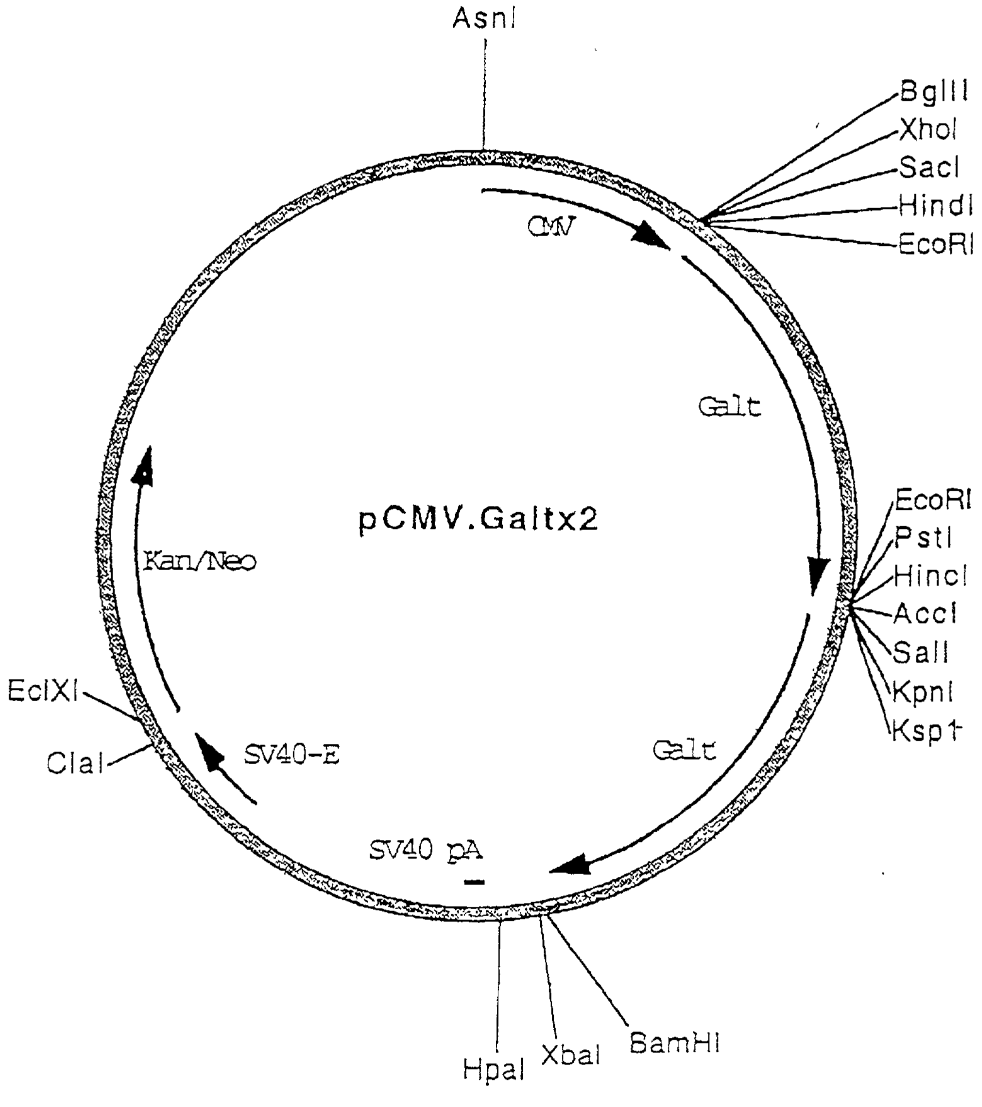

AsnI
BglII
XhoI
SacI
HindI
EcoRI
CMV
Galt
pCMV.Galtx2
EcoRI
PstI
HincI
AccI
SalI
KpnI
Kspt
Kan/Neo
EclXI
ClaI
SV40-E
Galt
SV40 pA
HpaI
XbaI
BamHI

FIGURE 35

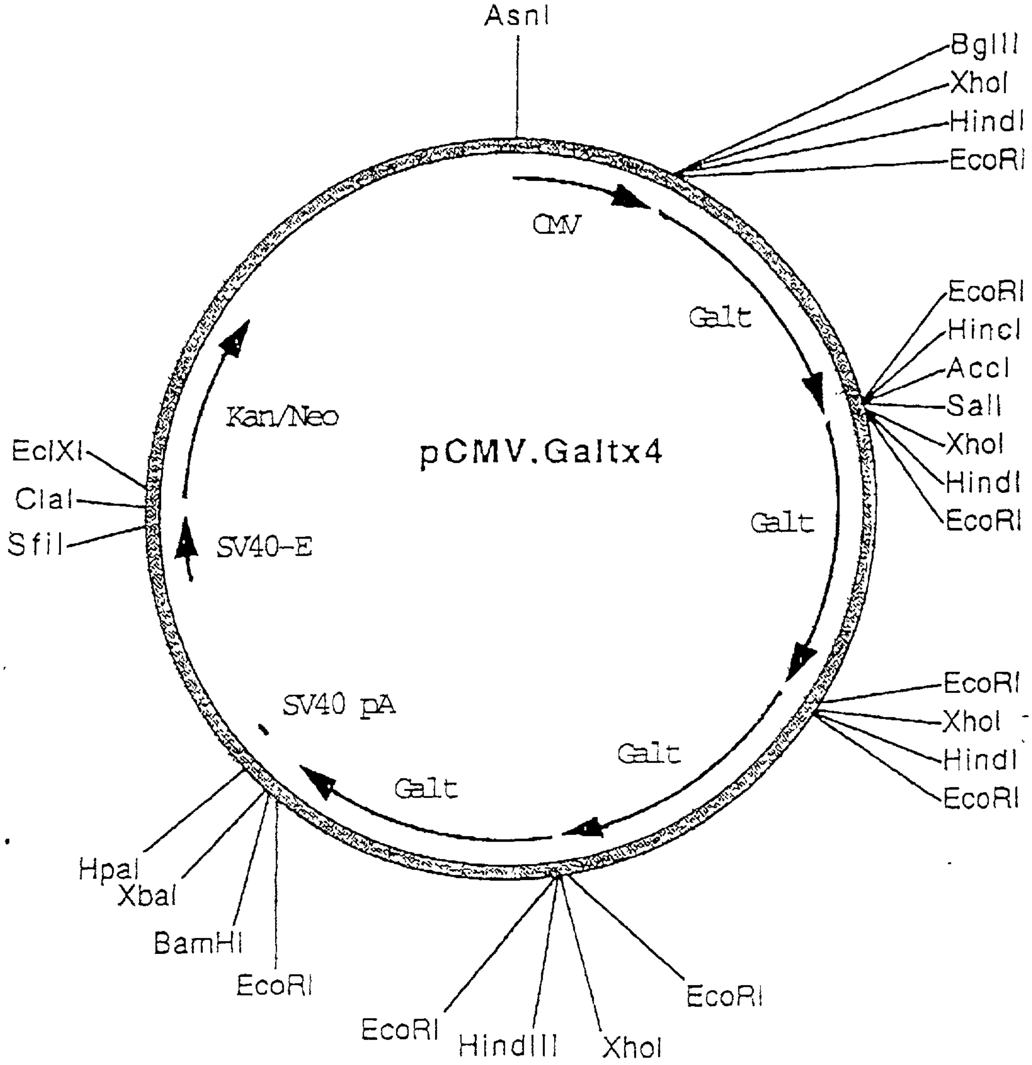

AsnI
BglII
XhoI
HindI
EcoRI
CMV
Galt
EcoRI
HincI
AccI
SalI
XhoI
HindI
EcoRI
Kan/Neo
pCMV.Galtx4
EclXI
ClaI
SfiI
SV40-E
Galt
EcoRI
XhoI
HindI
EcoRI
SV40 pA
Galt
Galt
HpaI
XbaI
BamHI
EcoRI
EcoRI
HindIII
XhoI
EcoRI

FIGURE 36

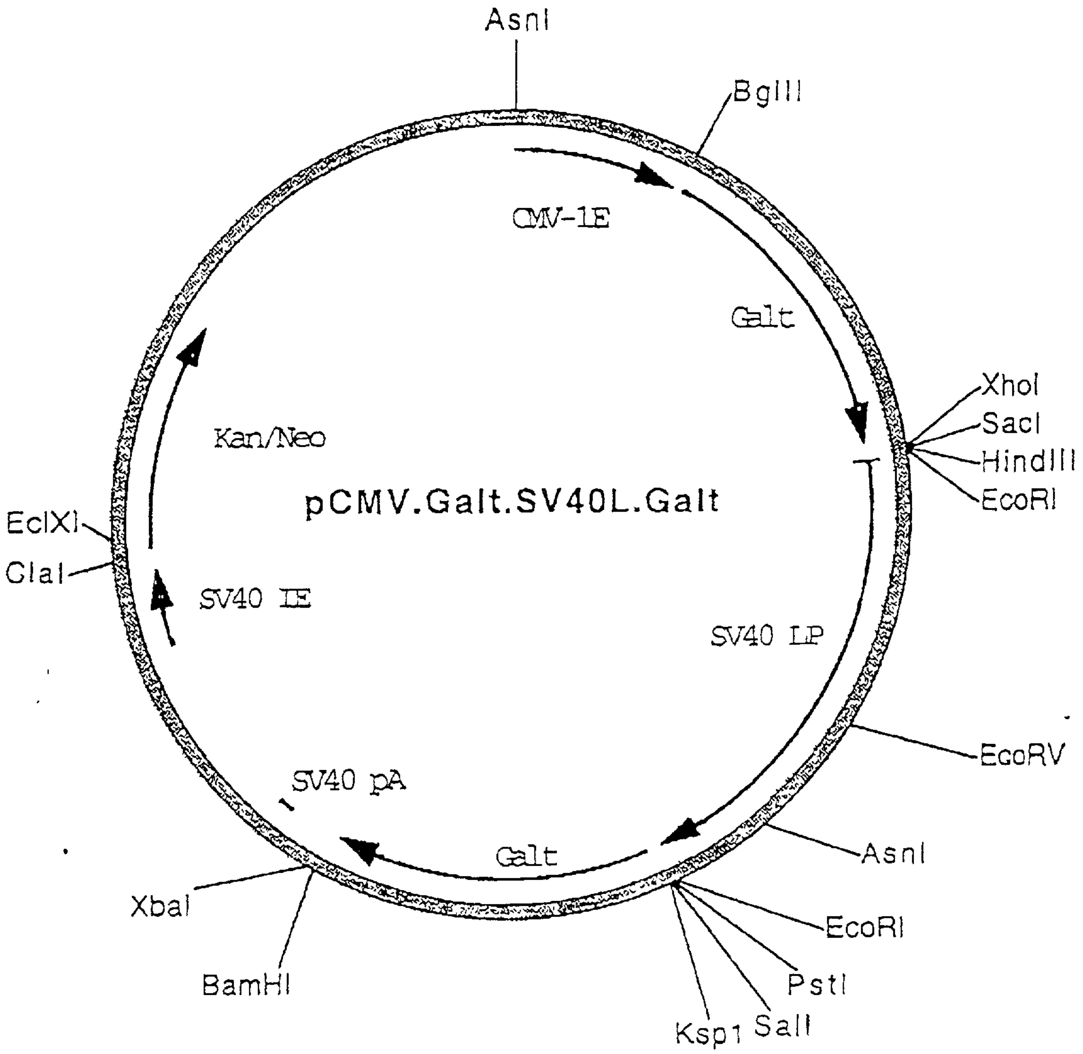

AsnI
BglII
CMV-1E
Galt
XhoI
SacI
HindIII
EcoRI
Kan/Neo
pCMV.Galt.SV40L.Galt
EclXI
ClaI
SV40 IE
SV40 LP
EcoRV
SV40 pA
Galt
AsnI
XbaI
EcoRI
PstI
BamHI
Ksp1
SalI

FIGURE 37

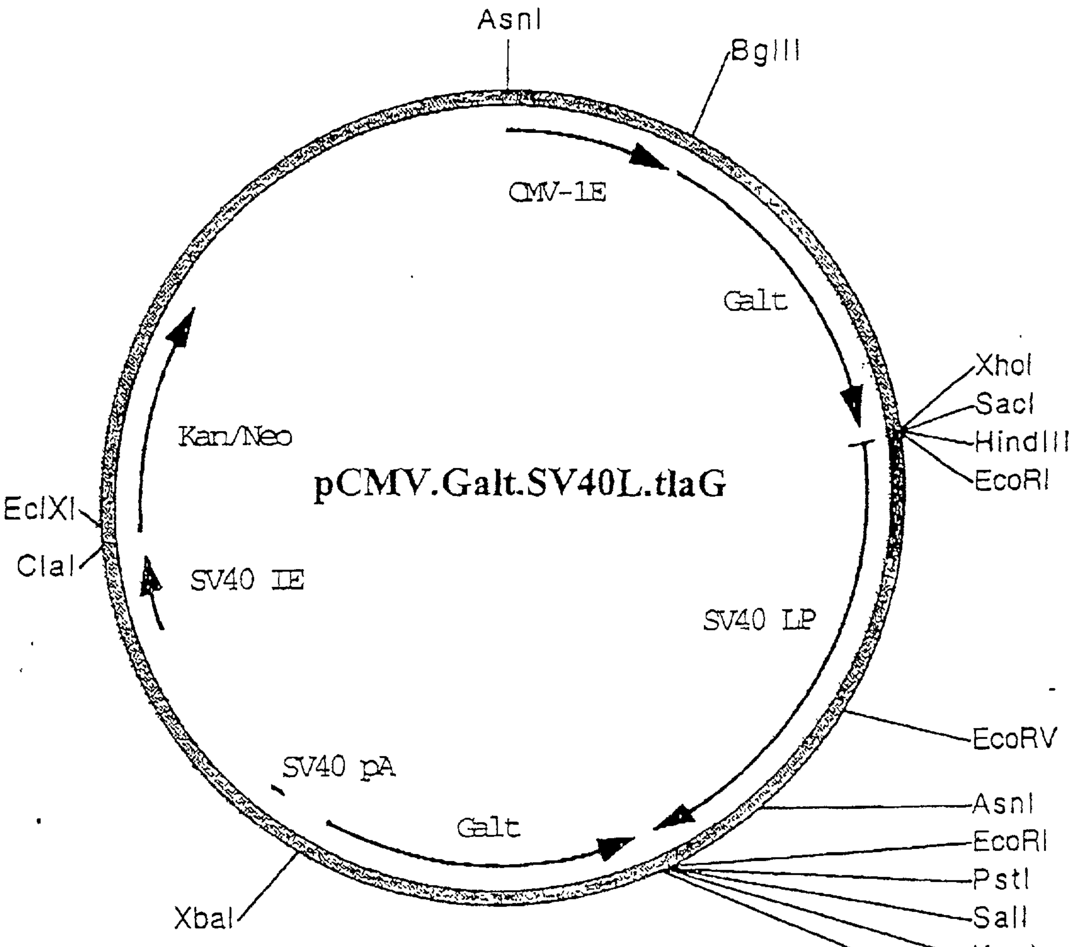

AsnI
BglII
CMV-1E
Galt
XhoI
SacI
HindIII
EcoRI
pCMV.Galt.SV40L.tlaG
Kan/Neo
EclXI
ClaI
SV40 IE
SV40 LP
EcoRV
SV40 pA
Galt
AsnI
EcoRI
PstI
SalI
Ksp1
BamHI
XbaI

FIGURE 38

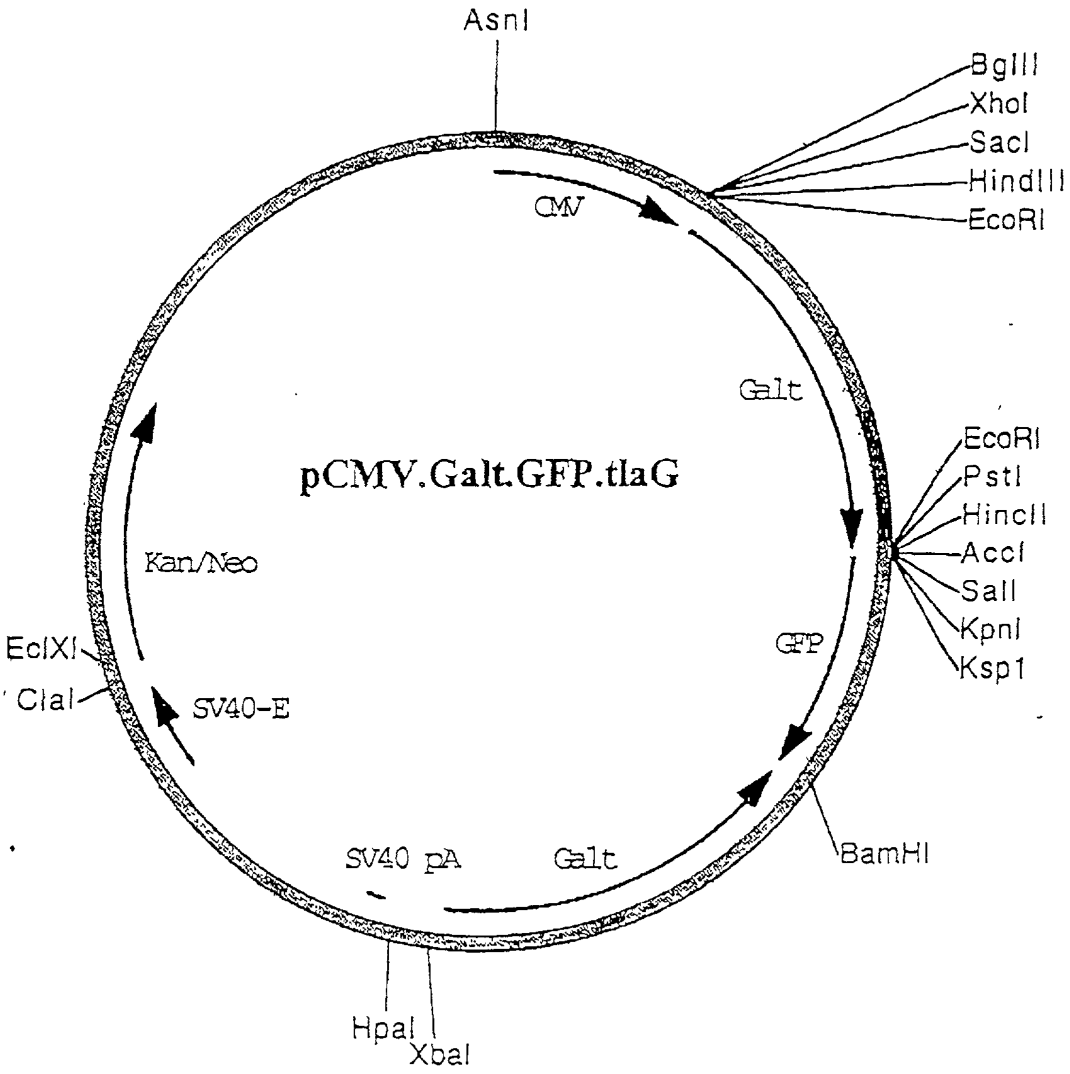

AsnI
BglII
XhoI
SacI
HindIII
EcoRI
CMV
Galt
pCMV.Galt.GFP.tlaG
EcoRI
PstI
HincII
AccI
SalI
KpnI
Ksp1
GFP
BamHI
Galt
SV40 pA
HpaI
XbaI
Kan/Neo
SV40-E
EclXI
ClaI

FIGURE 39

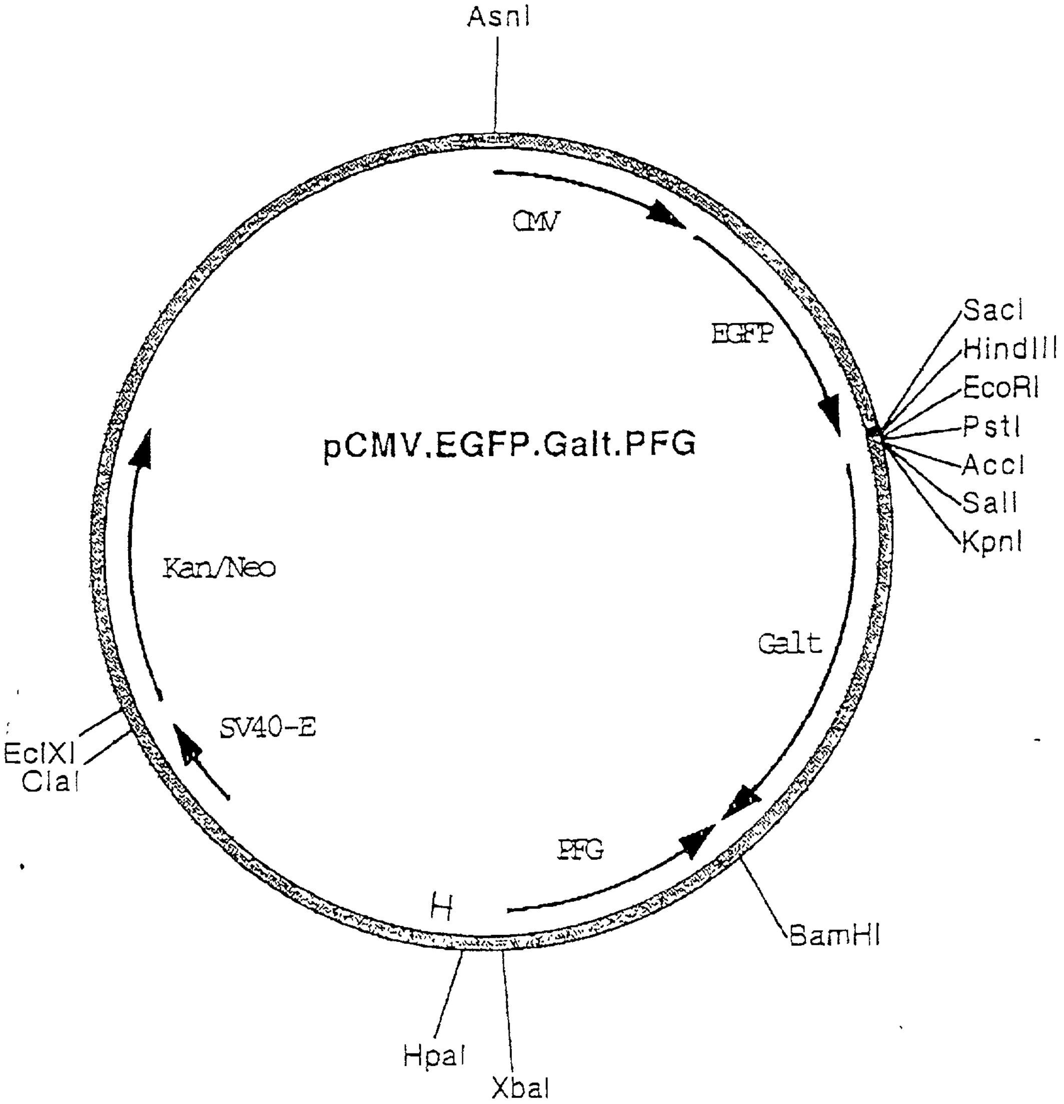

AsnI
CMV
EGFP
SacI
HindIII
EcoRI
PstI
AccI
SalI
KpnI
pCMV.EGFP.Galt.PFG
Kan/Neo
Galt
SV40-E
EclXI
ClaI
PFG
H
BamHI
HpaI
XbaI

FIGURE 40

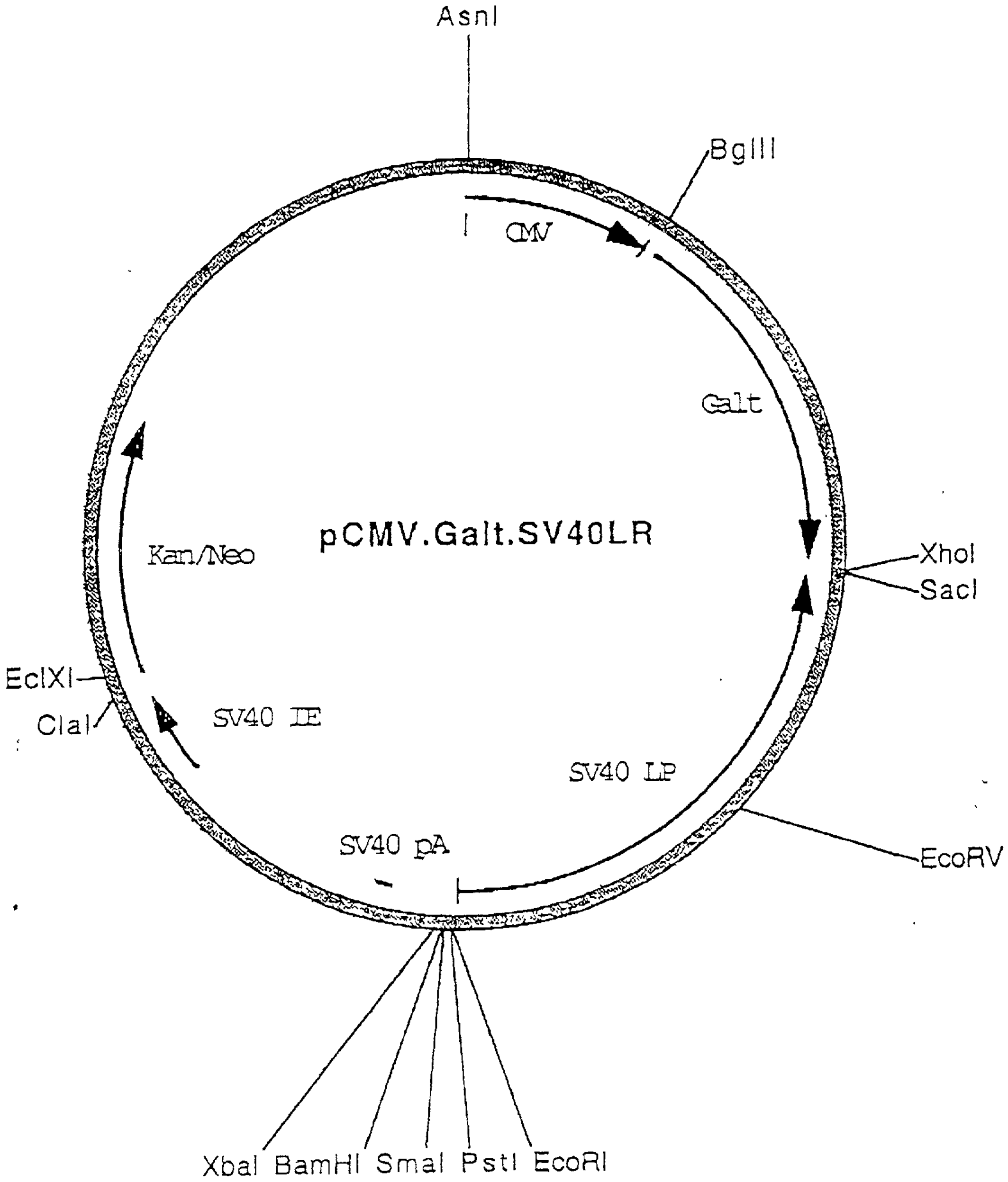

AsnI
BglII
CMV
Galt
pCMV.Galt.SV40LR
Kan/Neo
XhoI
SacI
EclXI
ClaI
SV40 IE
SV40 LP
SV40 pA
EcoRV
XbaI
BamHI
SmaI
PstI
EcoRI

FIGURE 41

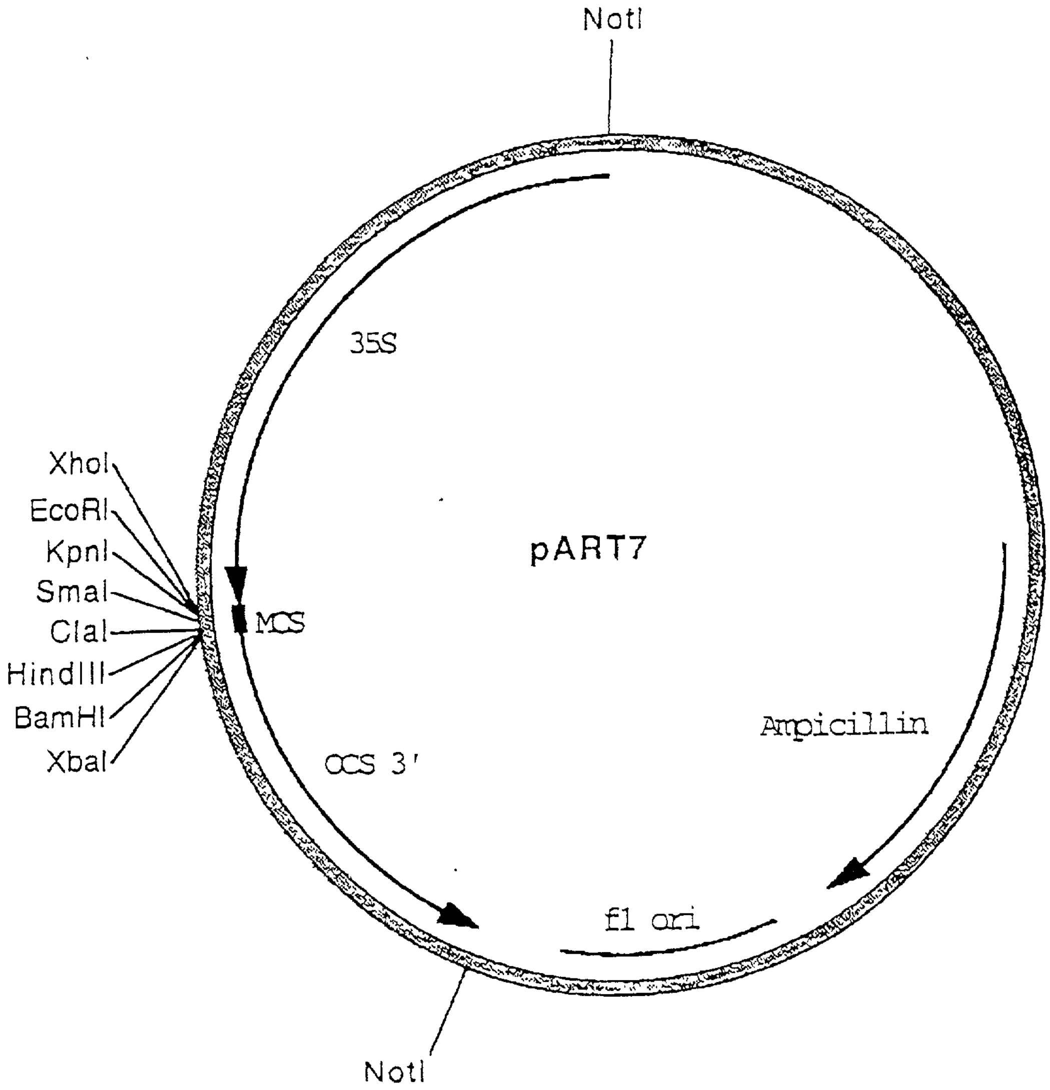

NotI
35S
pART7
XhoI
EcoRI
KpnI
SmaI
ClaI
HindIII
BamHI
XbaI
MCS
OCS 3'
Ampicillin
f1 ori
NotI

FIGURE 42

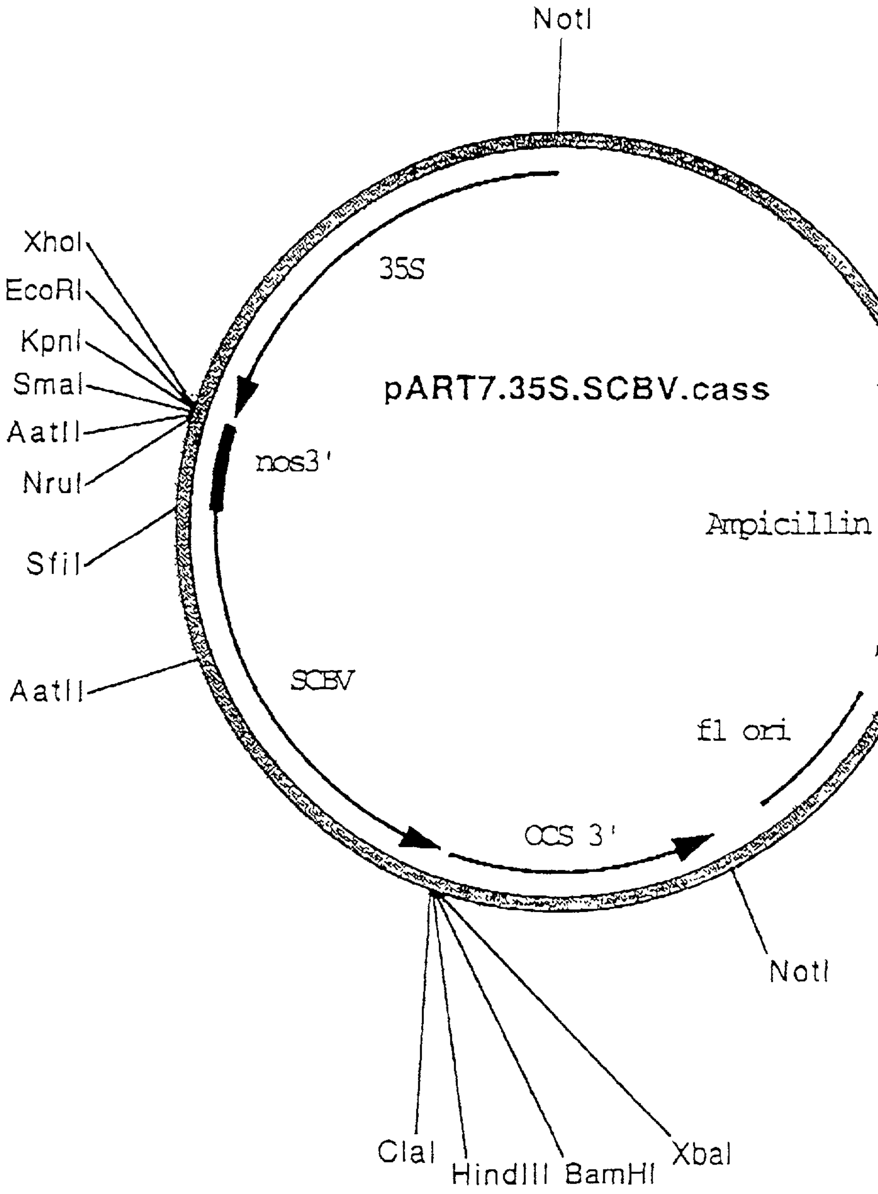
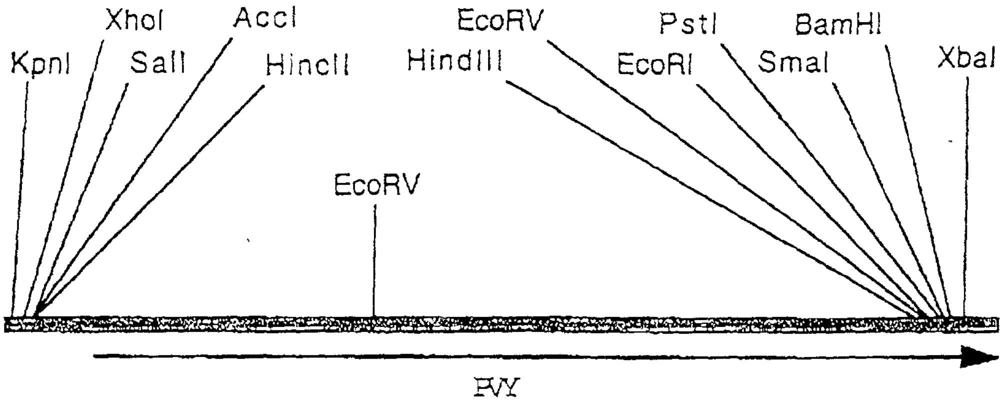
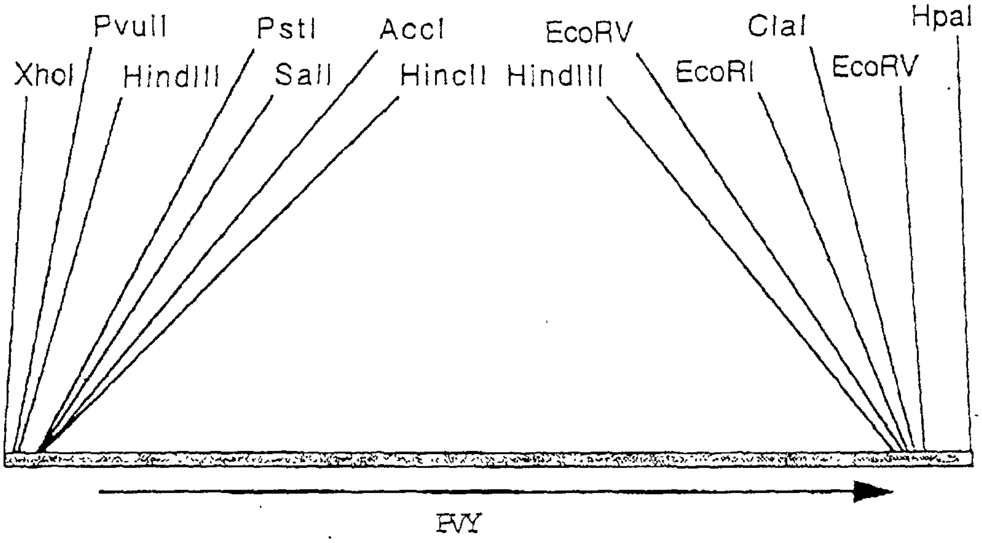

NotI
XhoI
EcoRI
KpnI
SmaI
AatII
NruI
SfiI
AatII
35S
pART7.35S.SCBV.cass
nos3'
Ampicillin
SCBV
f1 ori
OCS 3'
NotI
ClaI
HindIII
BamHI
XbaI

FIGURE 43



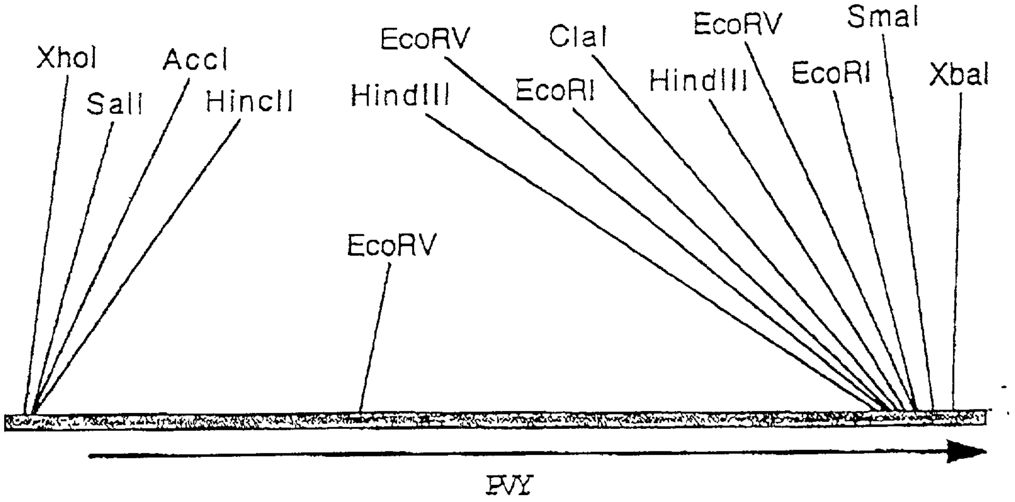
PBC.PVY

FIGURE 44



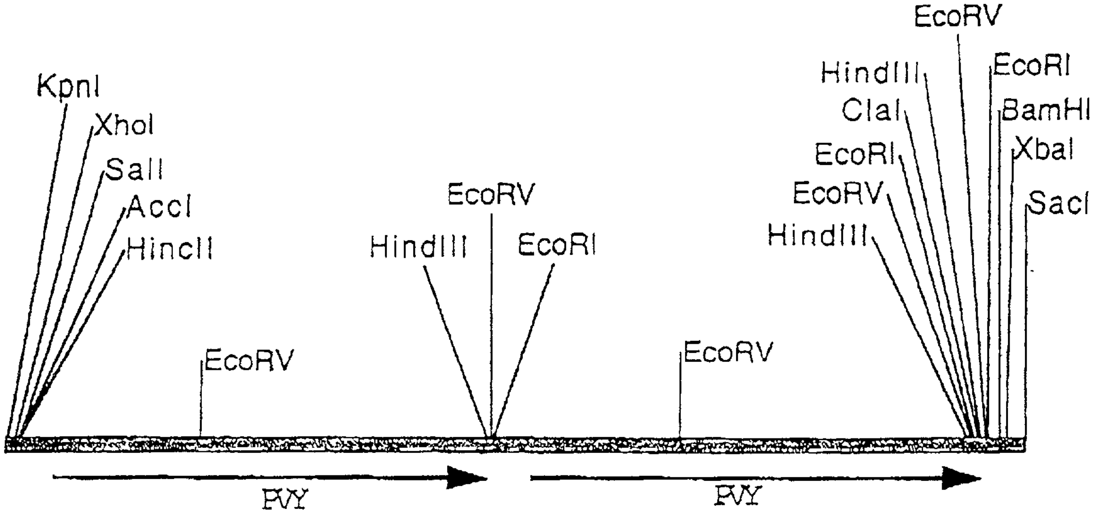
pSP72.PVY

FIGURE 45



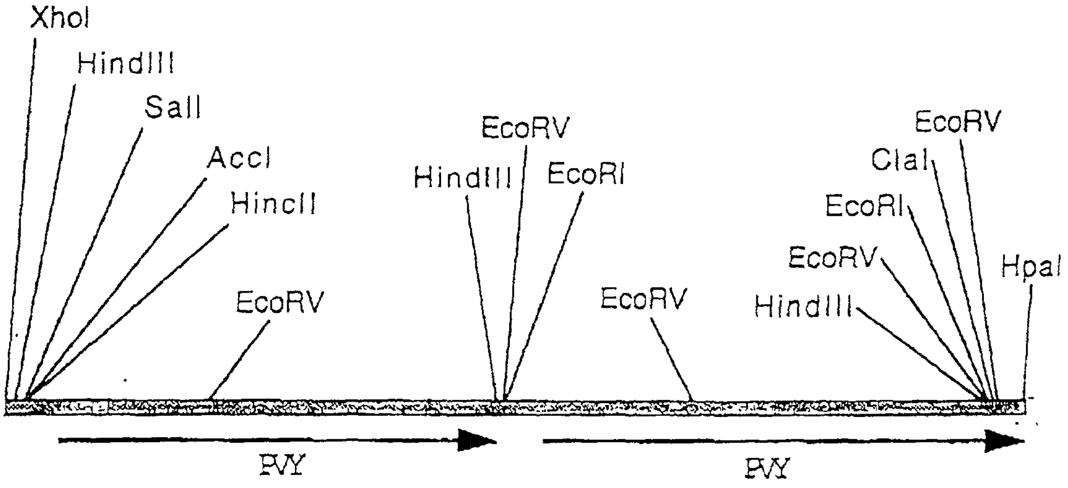
**ClapBC.PVY**

FIGURE 46



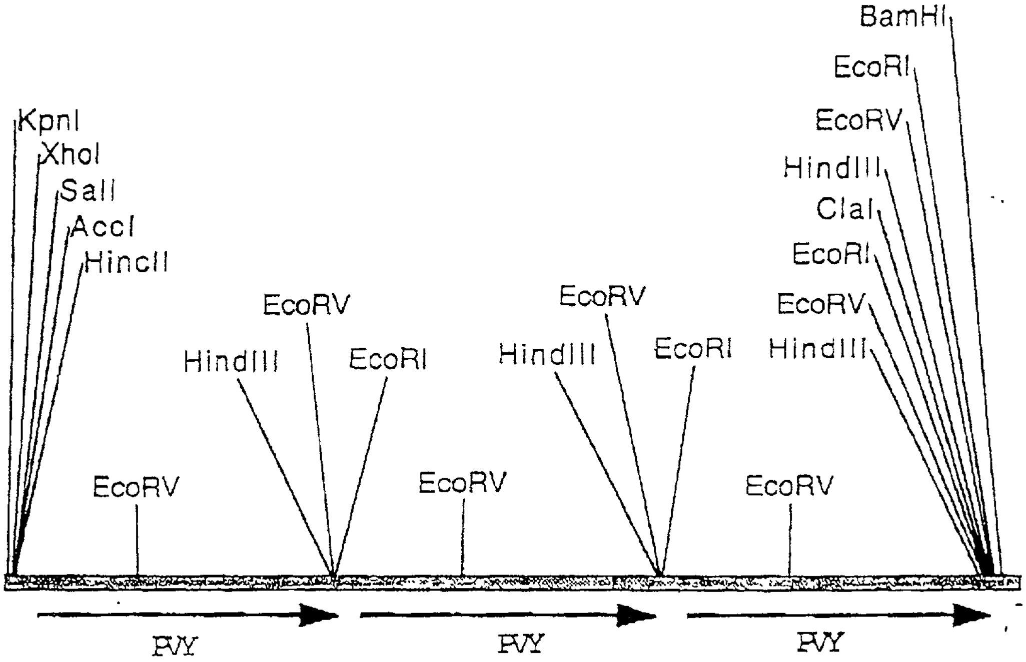
pBC.PVYx2

FIGURE 47



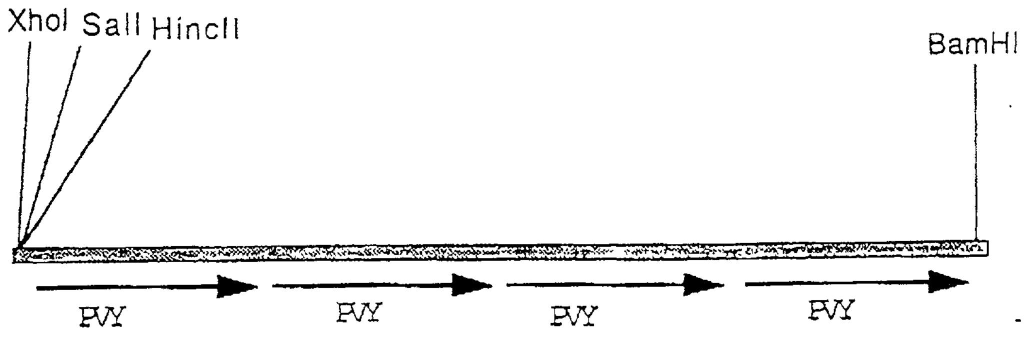
PSP72.PVYx2

FIGURE 48



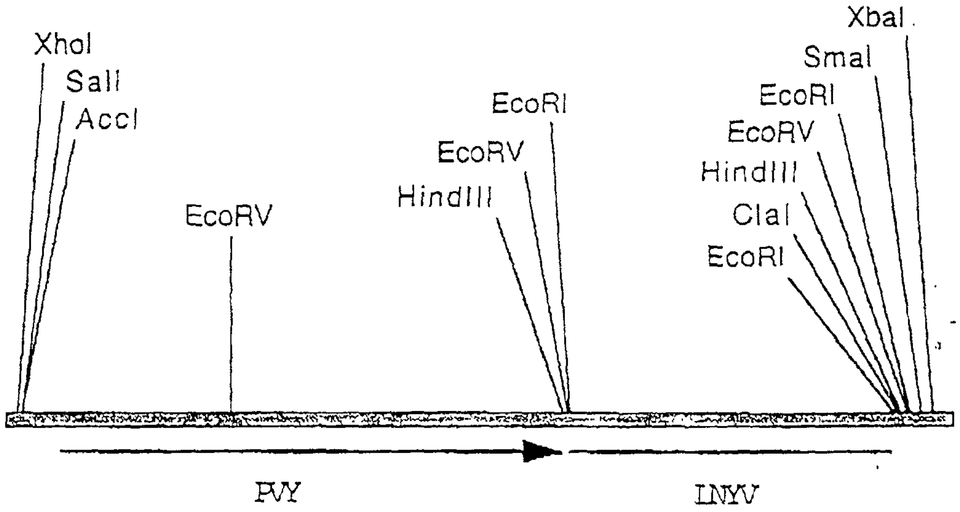
pBC.PVYx3

FIGURE 49



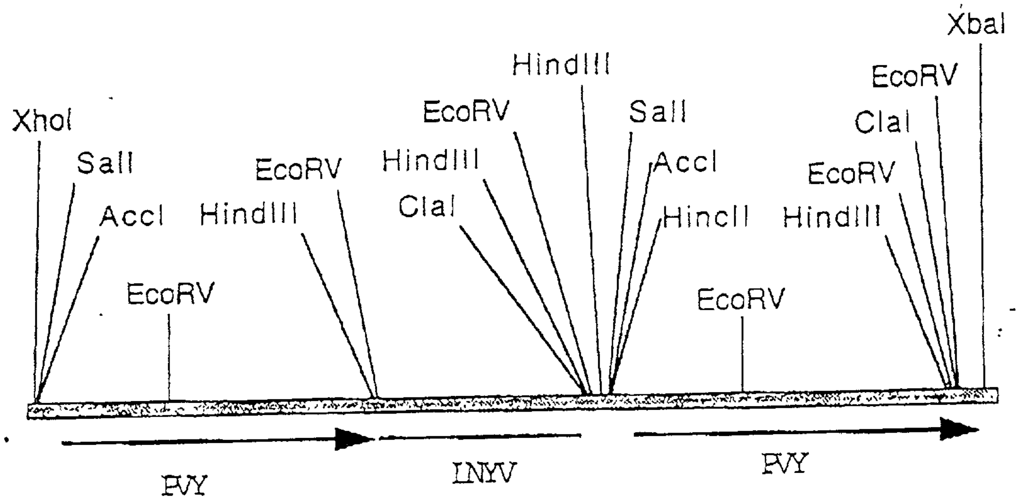
pBC.PVYx4

FIGURE 50



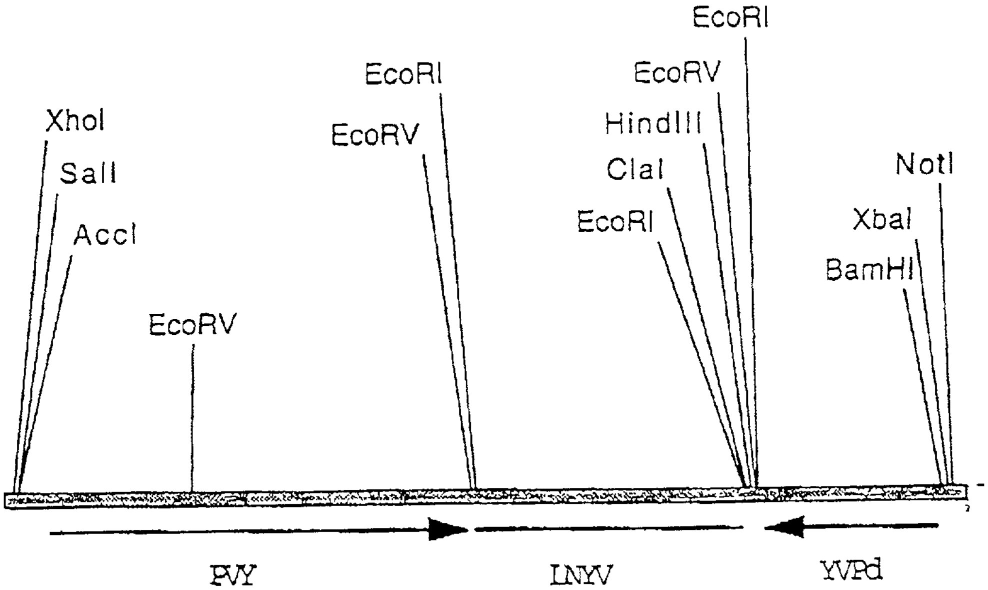
pBC.PVY.LNYV

FIGURE 51



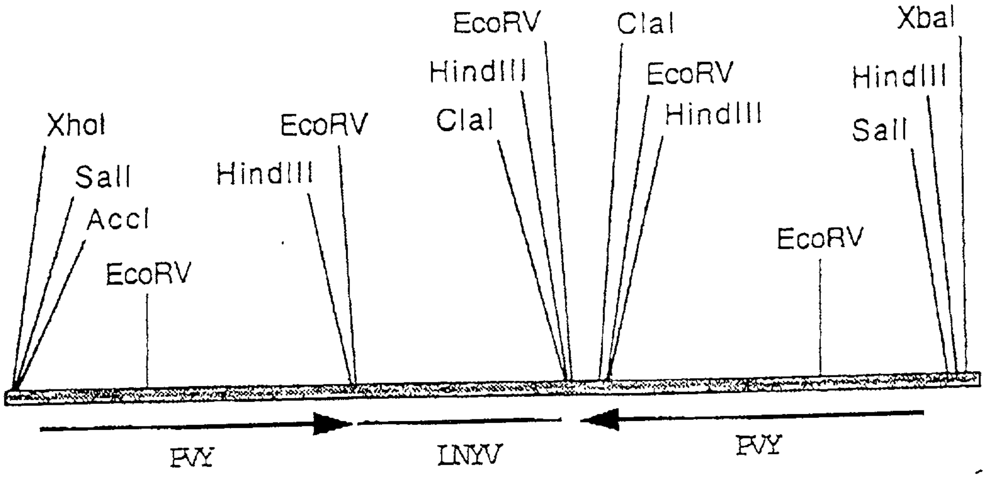
pBC.PVY.LNYV.PYV

FIGURE 52



pBC.PVY.LNYV.YVPΔ

FIGURE 53



pBC.PVY.LNYV.YVP

FIGURE 54

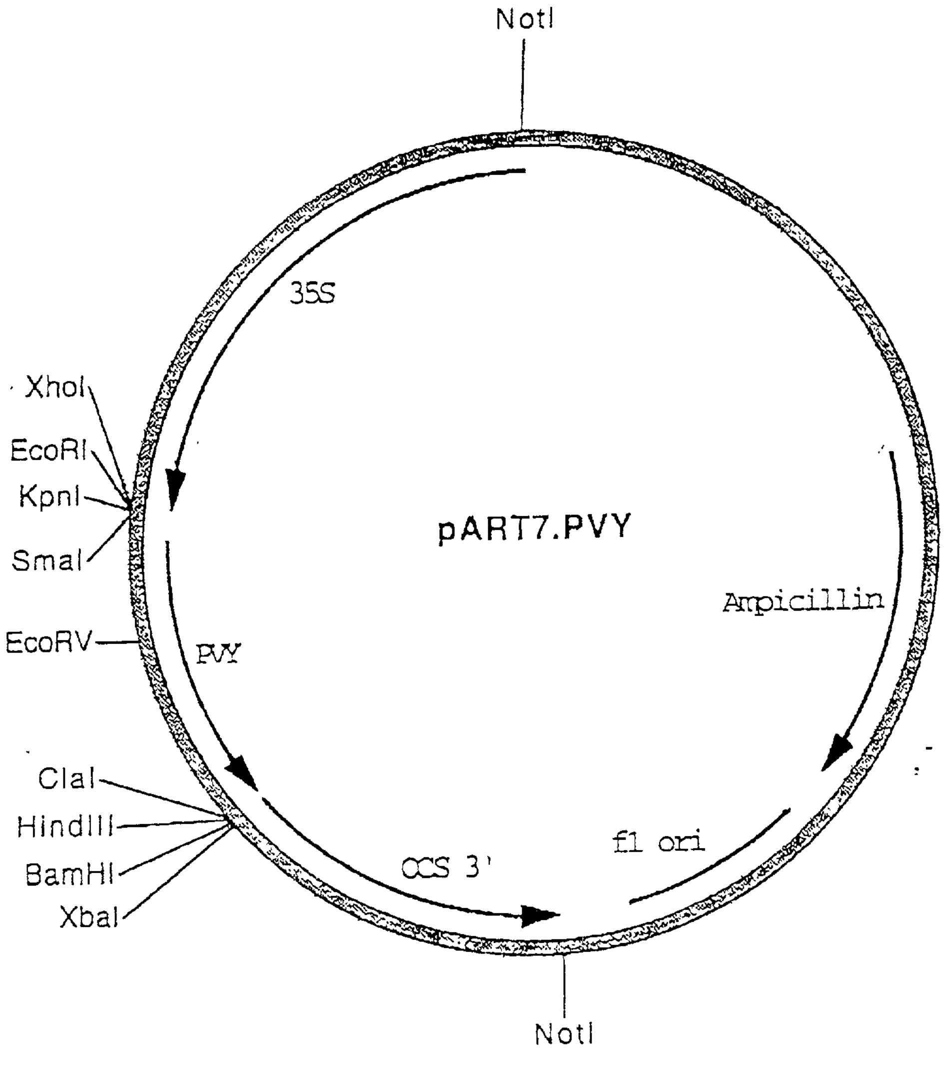

NotI
35S
XhoI
EcoRI
KpnI
SmaI
pART7.PVY
Ampicillin
EcoRV
PVY
ClaI
HindIII
BamHI
XbaI
OCS 3'
f1 ori
NotI

FIGURE 55

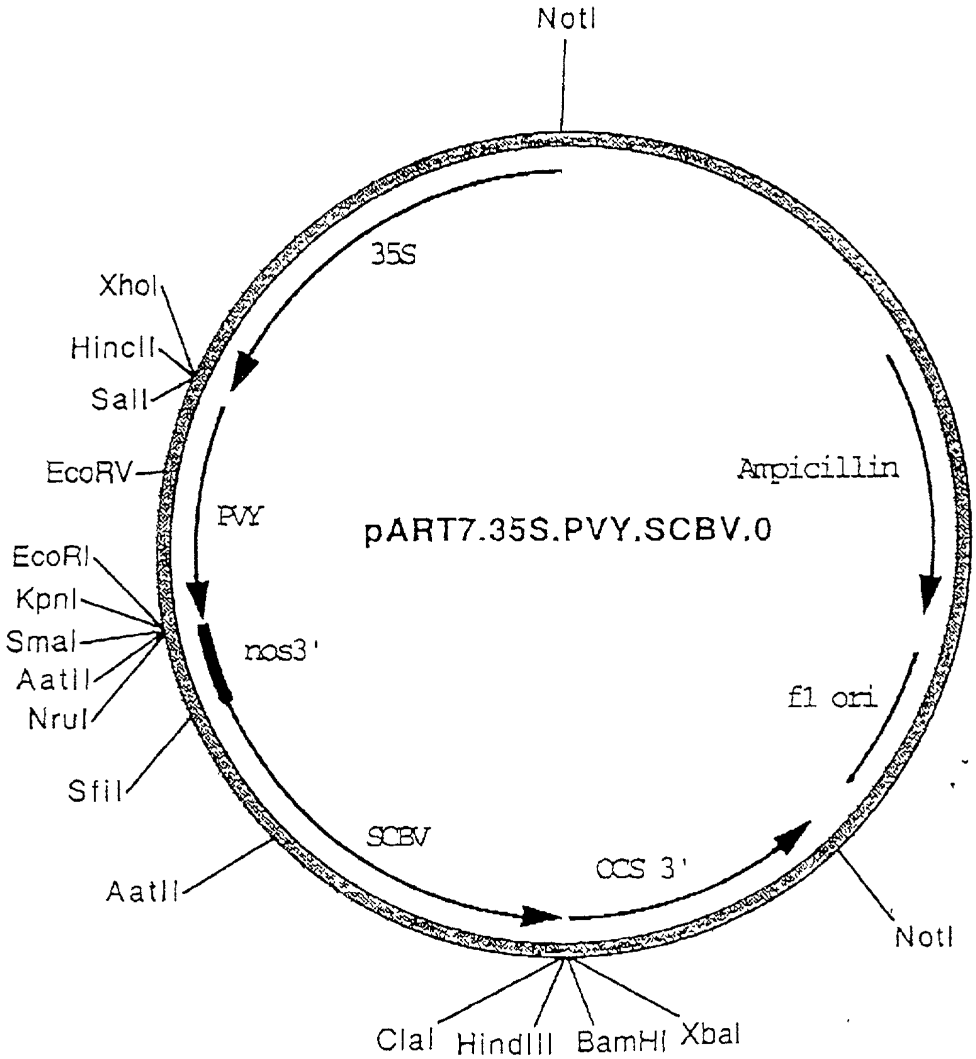

NotI
35S
XhoI
HincII
SalI
EcoRV
PVY
EcoRI
KpnI
SmaI
AatII
NruI
nos3'
SfiI
AatII
SCBV
OCS 3'
ClaI
HindIII
BamHI
XbaI
NotI
f1 ori
Ampicillin
pART7.35S.PVY.SCBV.0

FIGURE 56

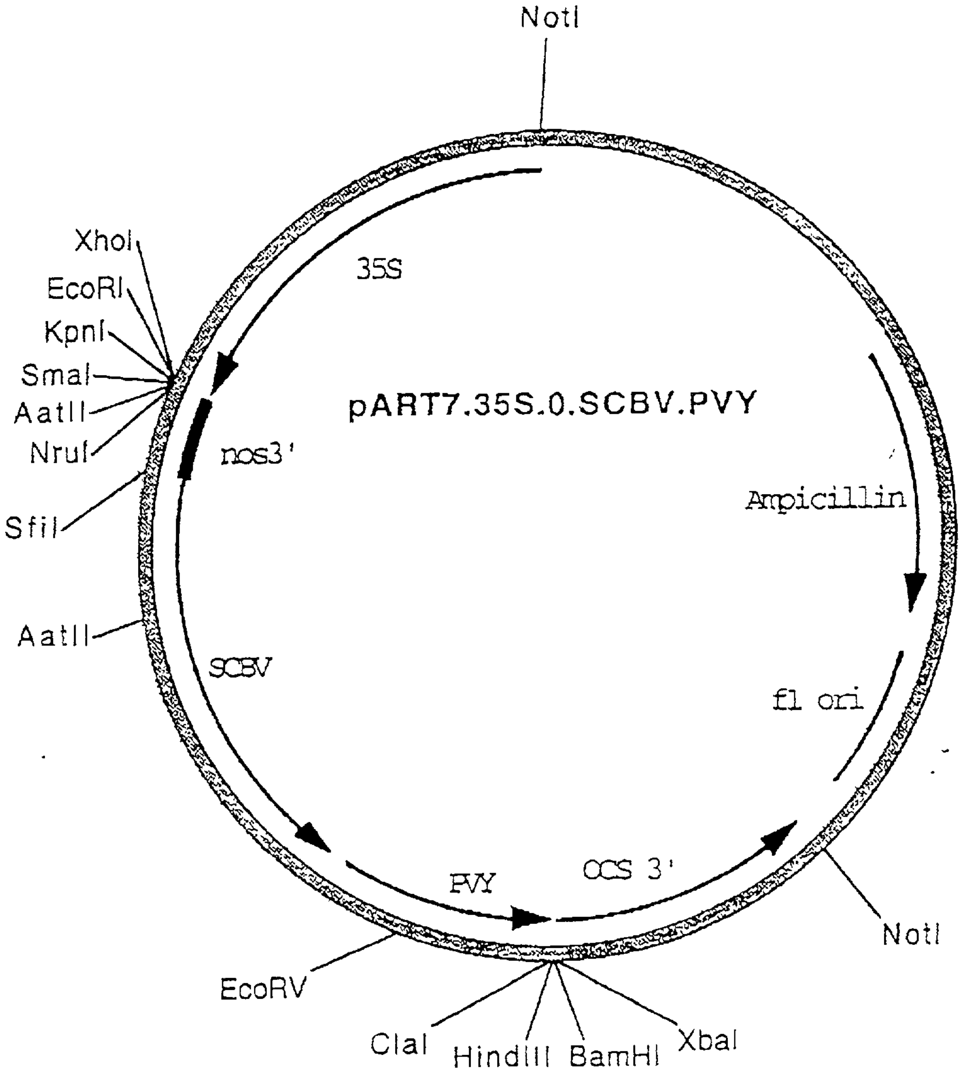

NotI
XhoI
EcoRI
KpnI
SmaI
AatII
NruI
SfiI
AatII
35S
pART7.35S.0.SCBV.PVY
nos3'
Ampicillin
SCBV
f1 ori
PVY
OCS 3'
NotI
EcoRV
ClaI
HindIII
BamHI
XbaI

FIGURE 57

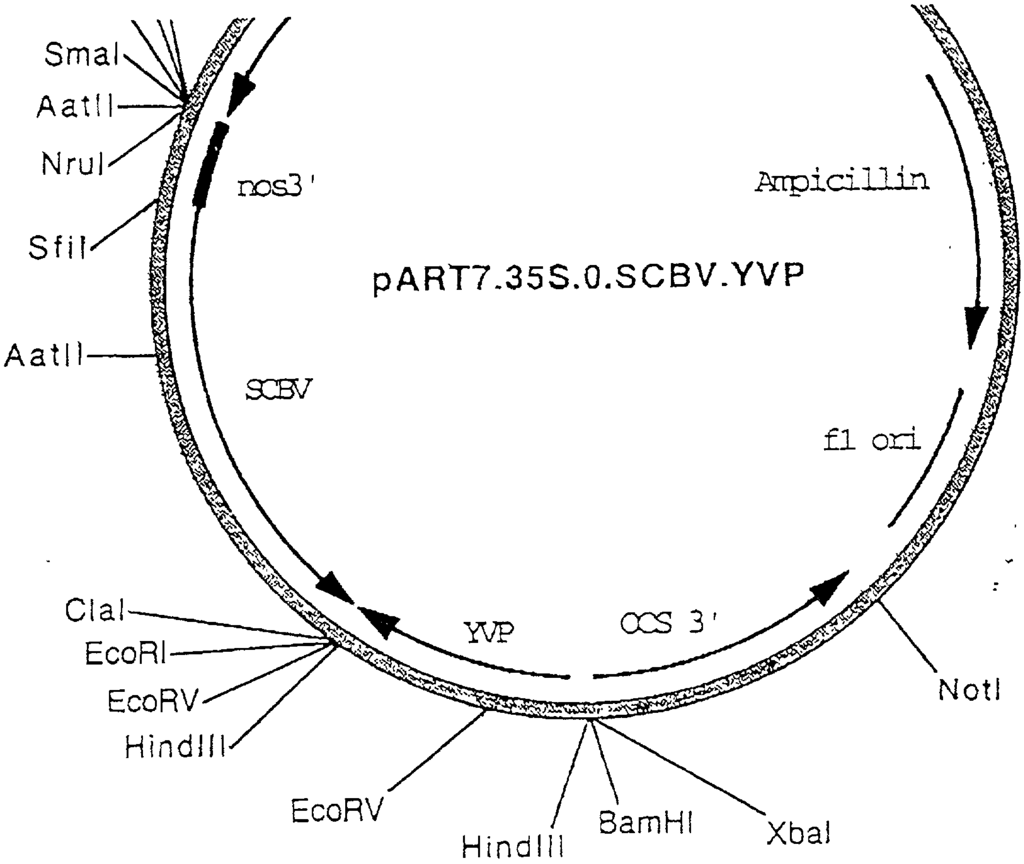

SmaI
AatII
NruI
SfiI
AatII
nos3'
SCBV
pART7.35S.0.SCBV.YVP
Ampicillin
f1 ori
ClaI
EcoRI
EcoRV
HindIII
YVP
OCS 3'
NotI
EcoRV
HindIII
BamHI
XbaI

FIGURE 58

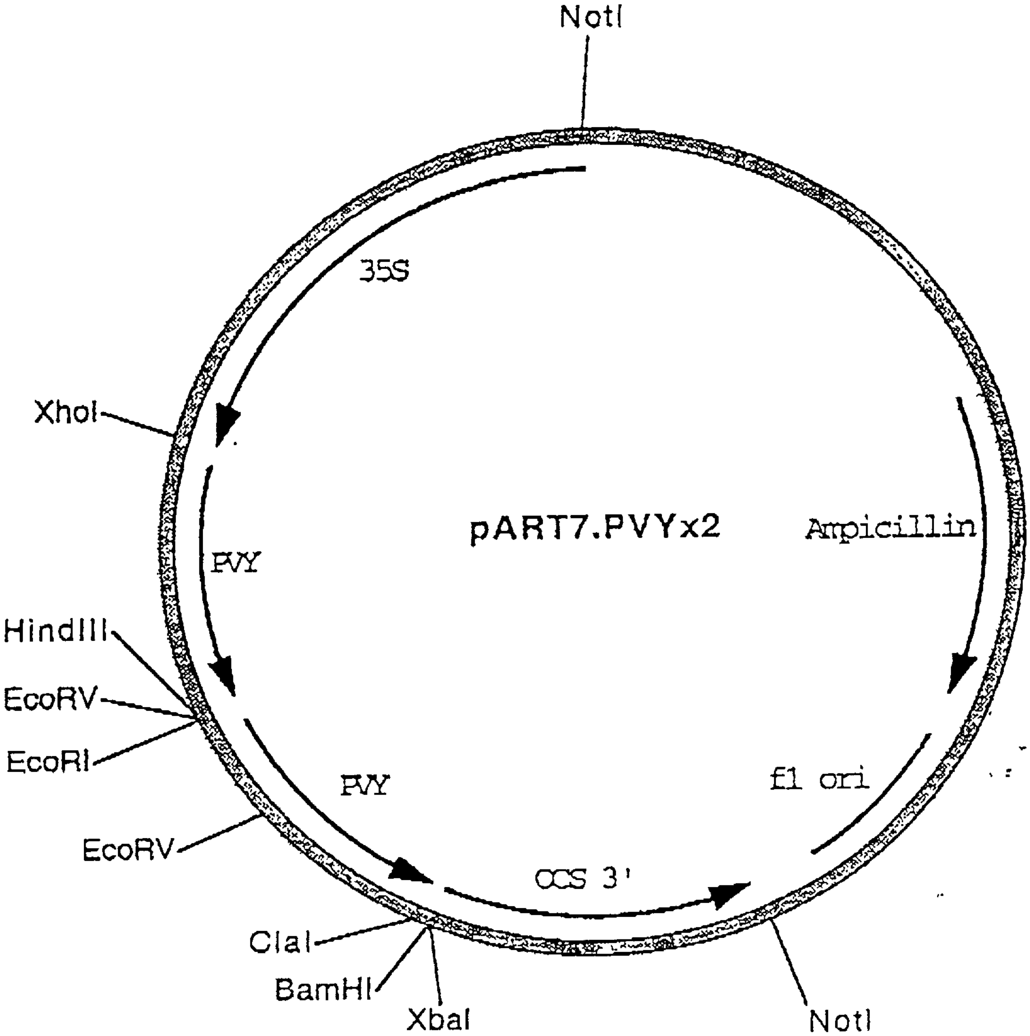

NotI
35S
XhoI
PVY
pART7.PVYx2
Ampicillin
HindIII
EcoRV
EcoRI
PVY
f1 ori
EcoRV
OCS 3'
ClaI
BamHI
XbaI
NotI

FIGURE 59

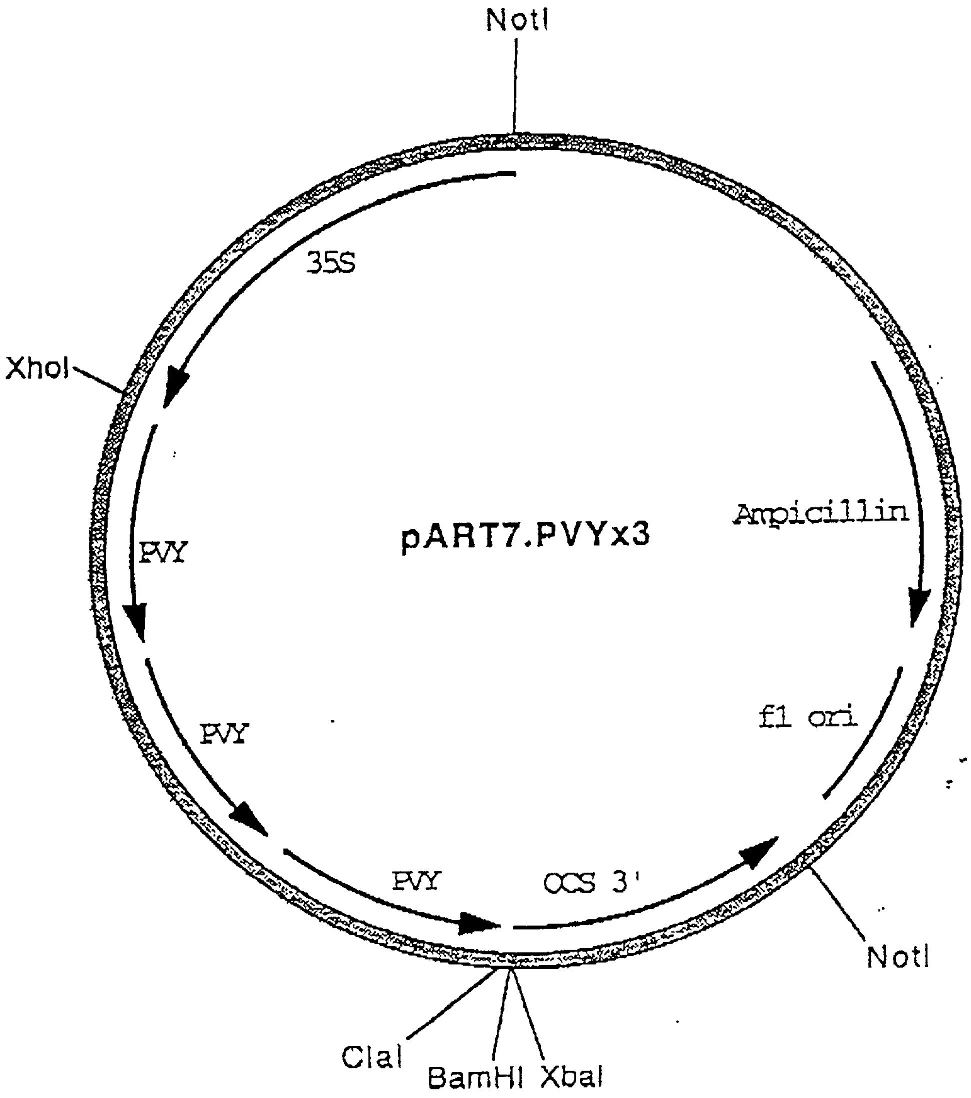

NotI
35S
XhoI
PVY
pART7.PVYx3
Ampicillin
PVY
f1 ori
PVY
OCS 3'
NotI
ClaI
BamHI
XbaI

FIGURE 60

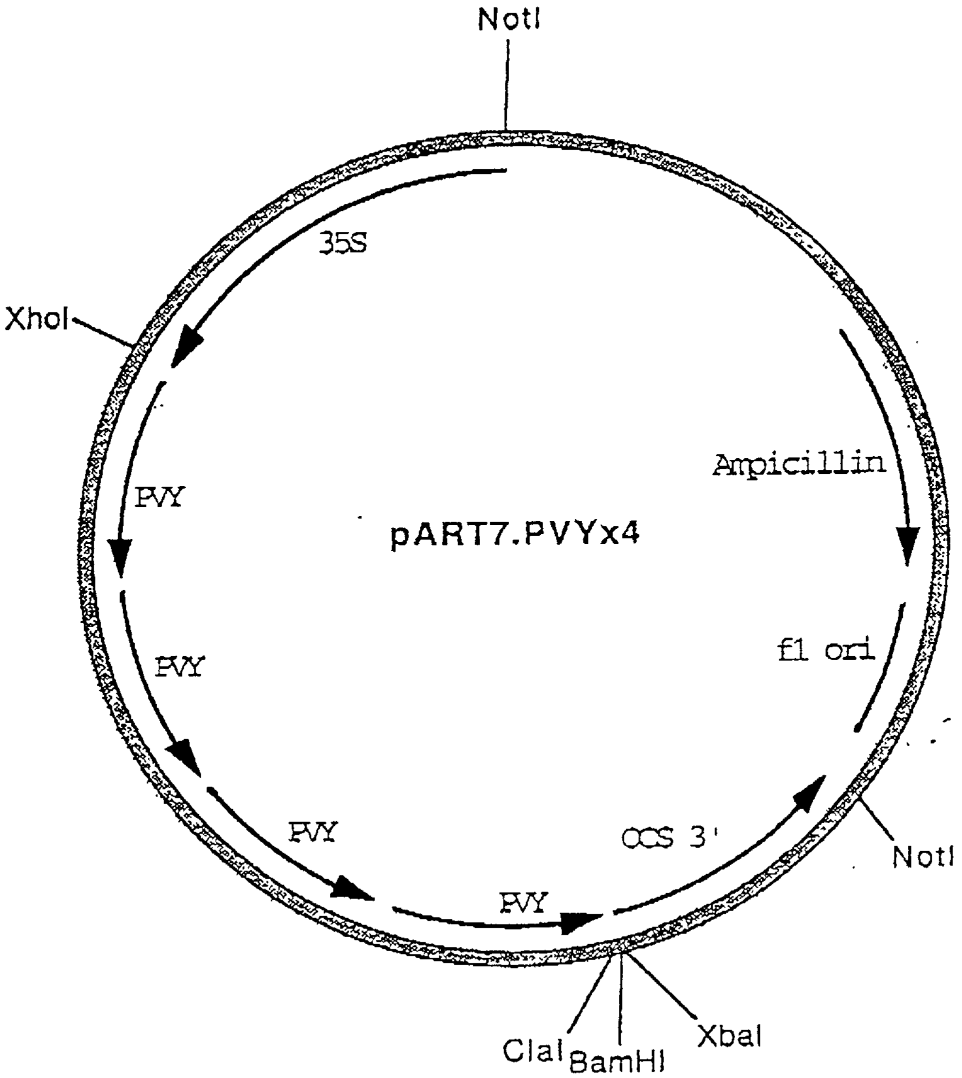

NotI
35S
XhoI
PVY
PVY
PVY
PVY
pART7.PVYx4
Ampicillin
f1 ori
OCS 3'
NotI
ClaI
BamHI
XbaI

FIGURE 61

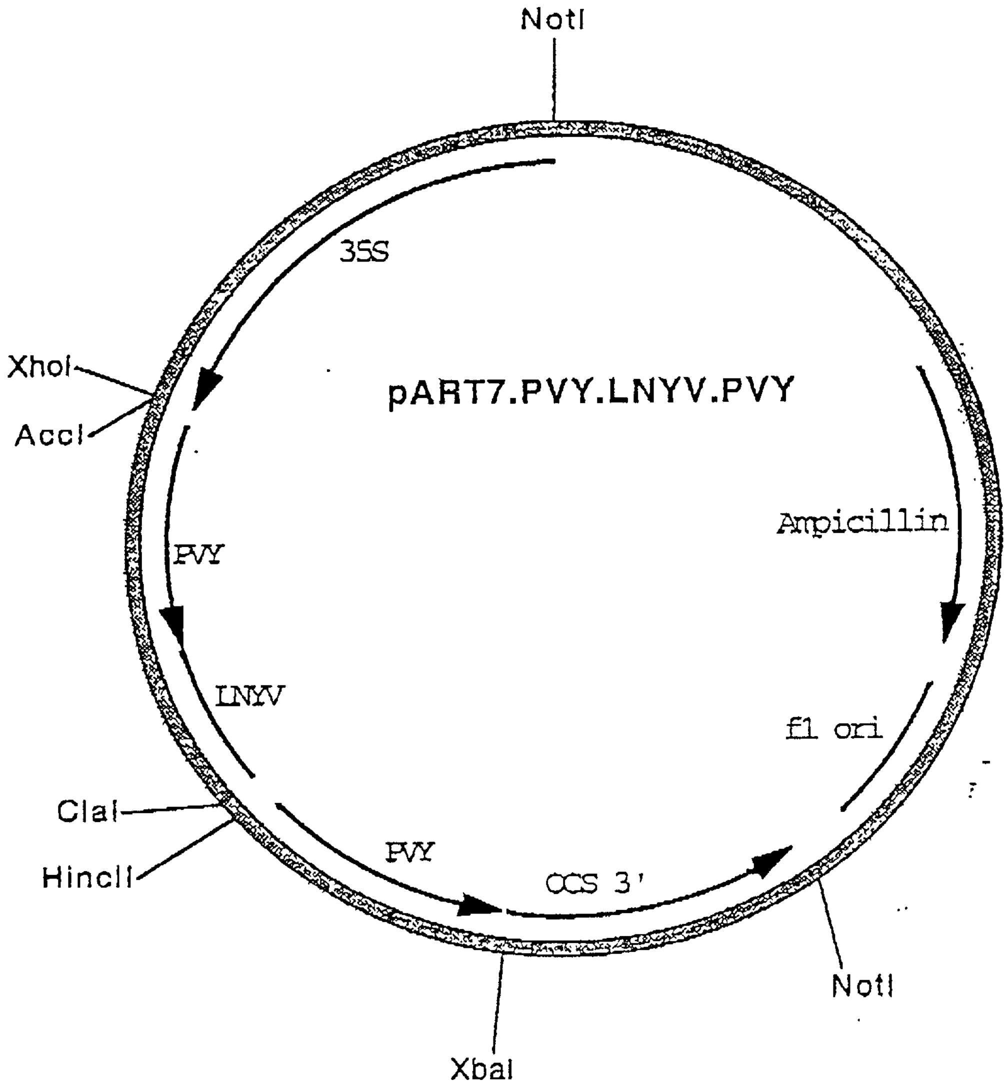

NotI
35S
pART7.PVY.LNYV.PVY
XhoI
AccI
PVY
Ampicillin
LNYV
f1 ori
ClaI
HincII
PVY
OCS 3'
NotI
XbaI

FIGURE 62

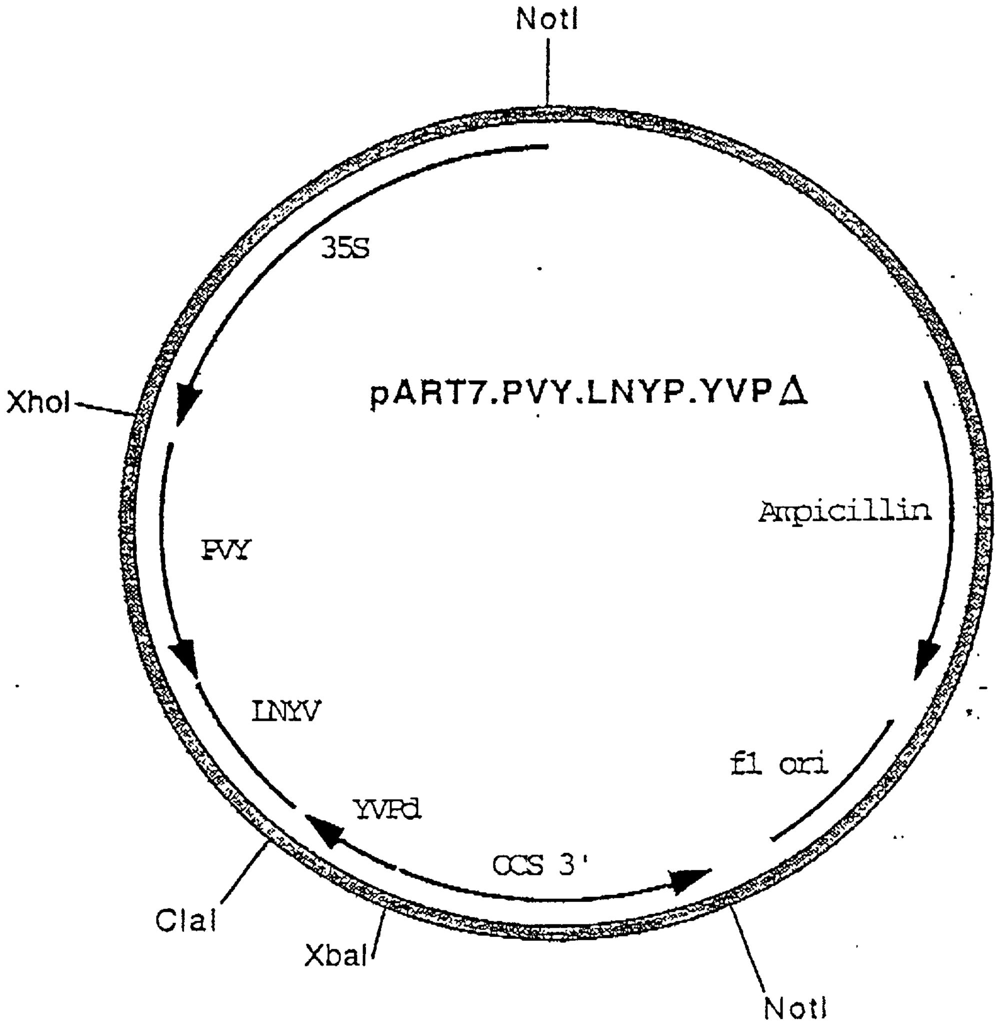

NotI
35S
XhoI
pART7.PVY.LNYP.YVPΔ
Ampicillin
PVY
LNYV
f1 ori
YVPd
OCS 3'
ClaI
XbaI
NotI

FIGURE 63

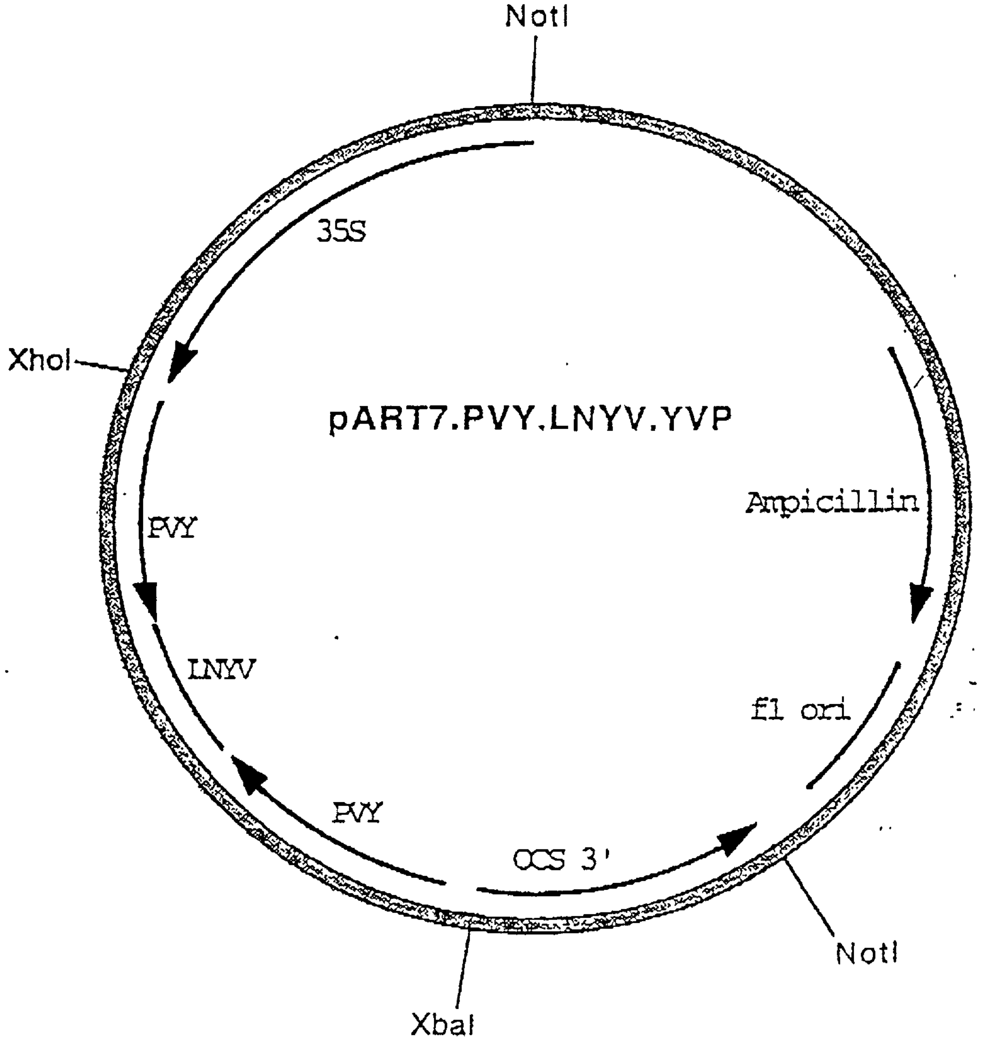

NotI
35S
XhoI
pART7.PVY.LNYV.YVP
Ampicillin
PVY
LNYV
f1 ori
PVY
OCS 3'
NotI
XbaI

FIGURE 64

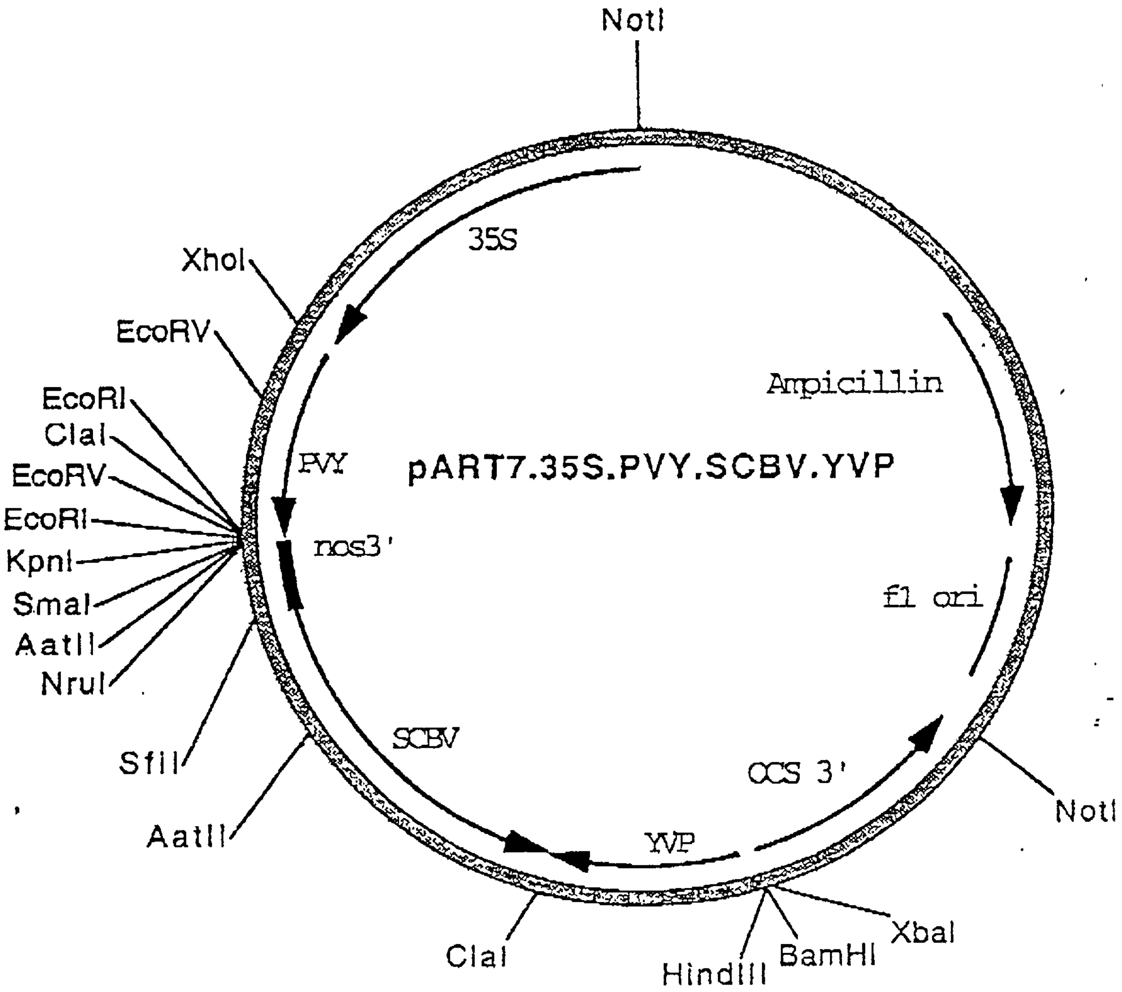

NotI
35S
XhoI
EcoRV
EcoRI
ClaI
EcoRV
EcoRI
KpnI
SmaI
AatII
NruI
SfiI
AatII
PVY
nos3'
pART7.35S.PVY.SCBV.YVP
Ampicillin
f1 ori
SCBV
YVP
OCS 3'
NotI
ClaI
HindIII
BamHI
XbaI

FIGURE 65

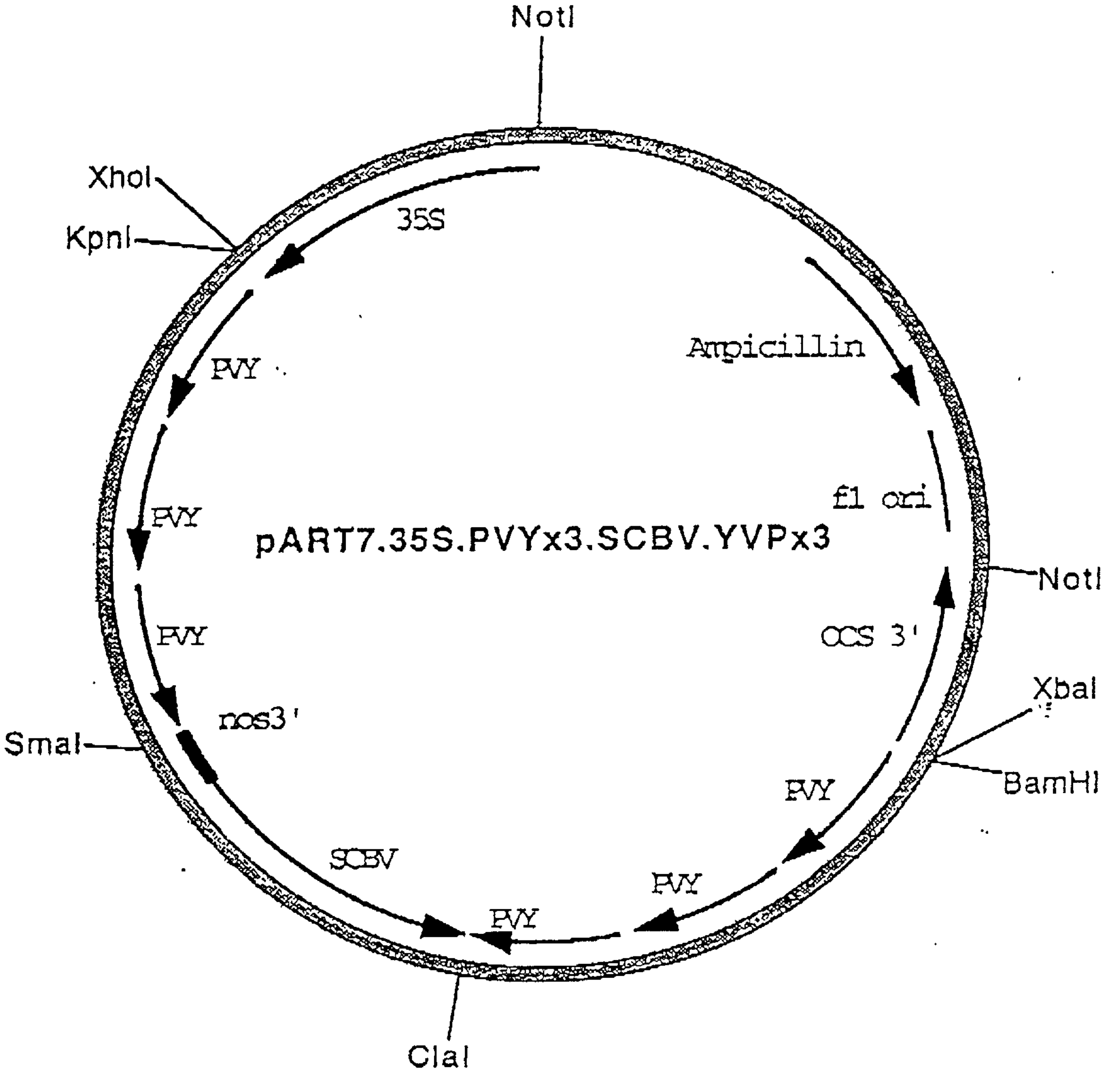

NotI
XhoI
KpnI
35S
Ampicillin
PVY
PVY
f1 ori
pART7.35S.PVYx3.SCBV.YVPx3
NotI
PVY
OCS 3'
XbaI
nos3'
SmaI
BamHI
PVY
PVY
SCBV
PVY
ClaI

FIGURE 66

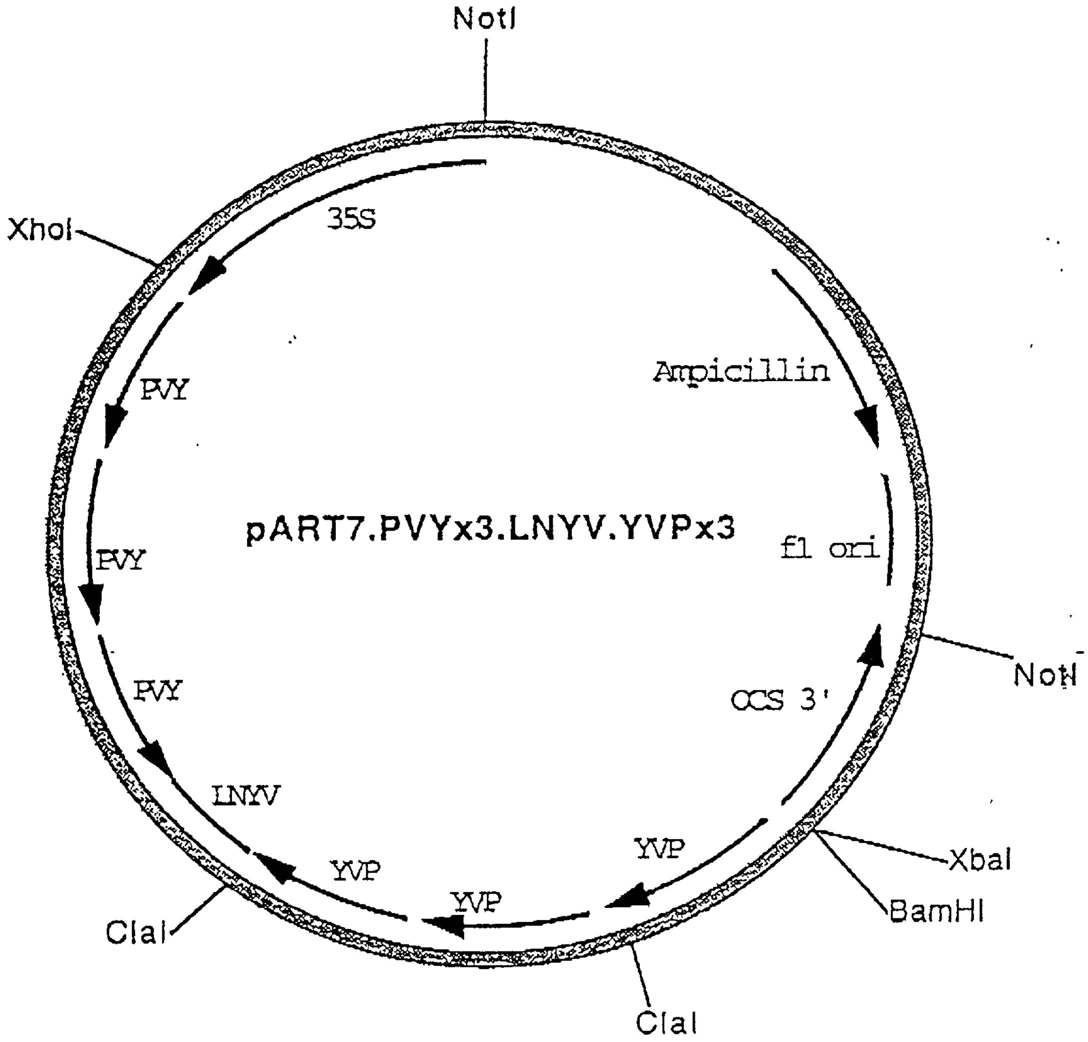

NotI
XhoI
35S
Ampicillin
PVY
PVY
PVY
pART7.PVYx3.LNYV.YVPx3
f1 ori
NotI
OCS 3'
LNYV
YVP
YVP
YVP
XbaI
BamHI
ClaI
ClaI

FIGURE 67

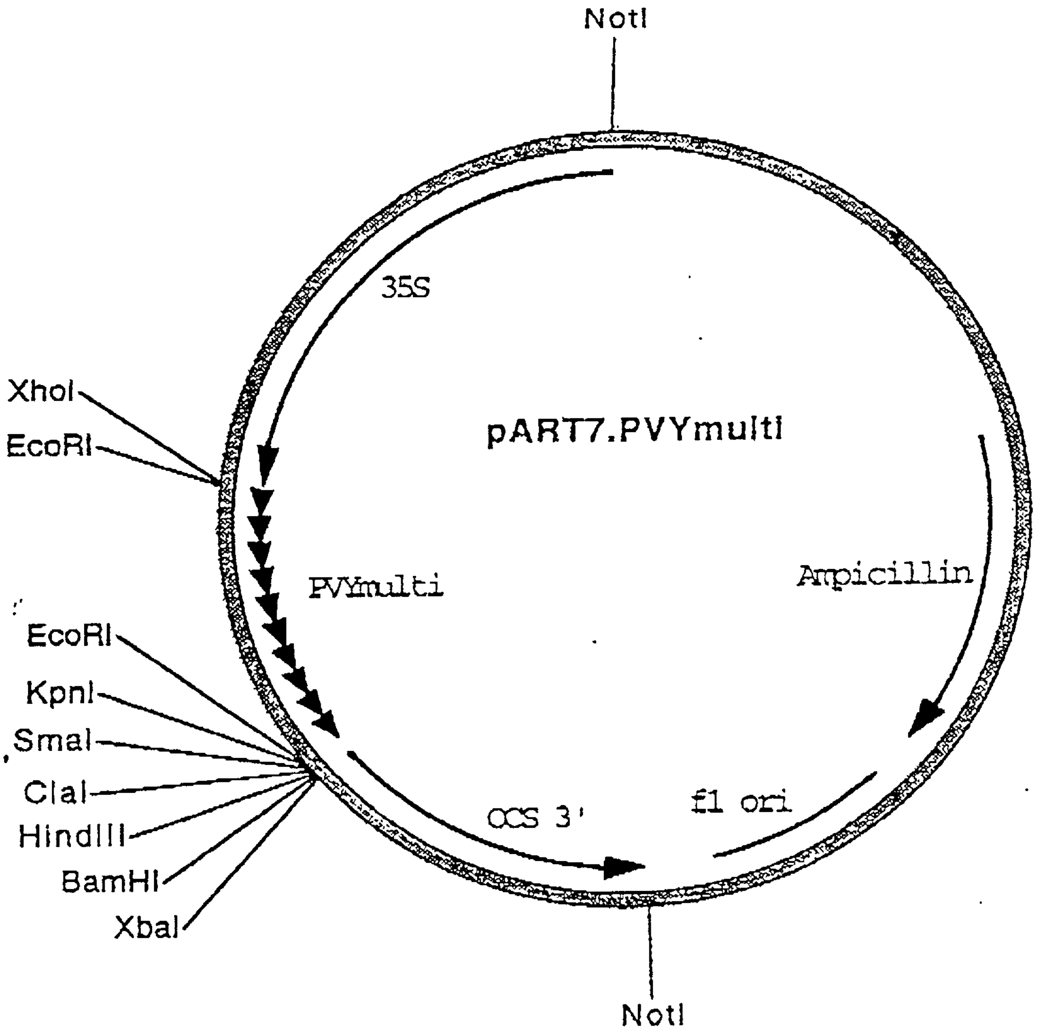
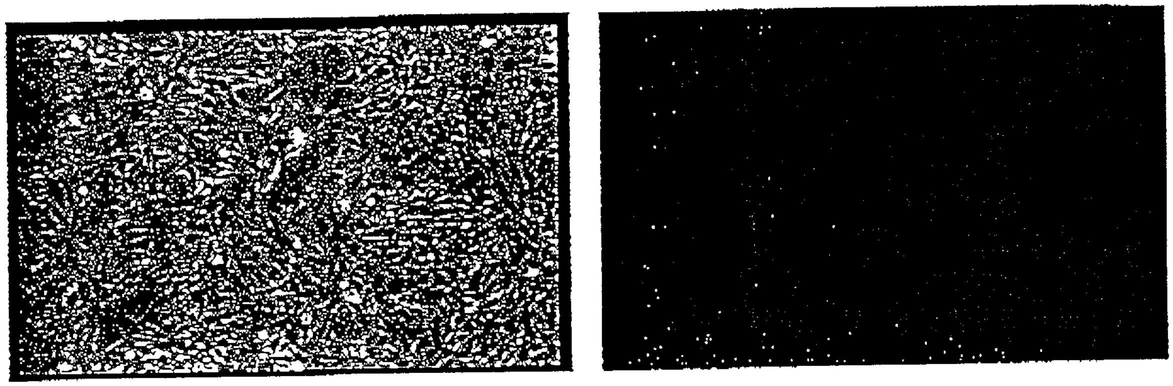
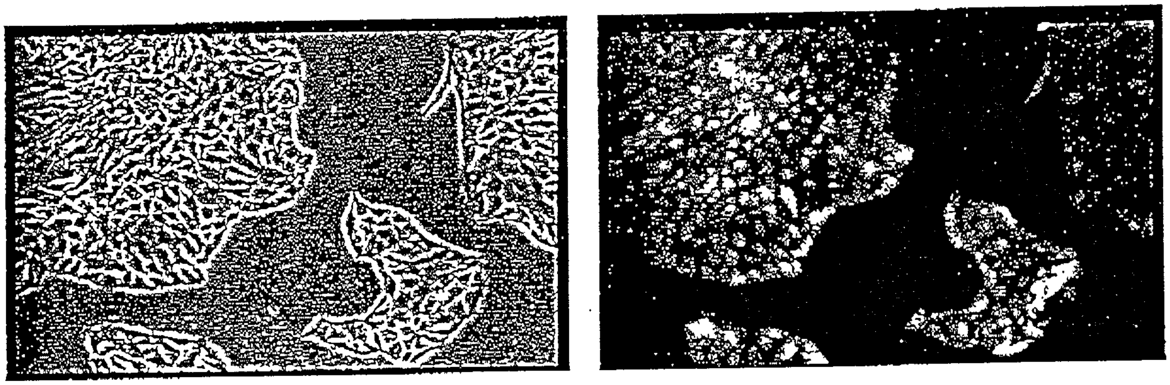

NotI
35S
XhoI
EcoRI
pART7.PVYmulti
PVYmulti
Ampicillin
EcoRI
KpnI
SmaI
ClaI
HindIII
BamHI
XbaI
OCS 3'
f1 ori
NotI

FIGURE 68



PK-EGFP 2.11
[light microscopy]

PK-EGFP 2.11
[fluorescence microscopy]



PK-EGFP 2.18
[light microscopy]

PK-EGFP 2.18
[fluorescence microscopy]

FIGURE 69

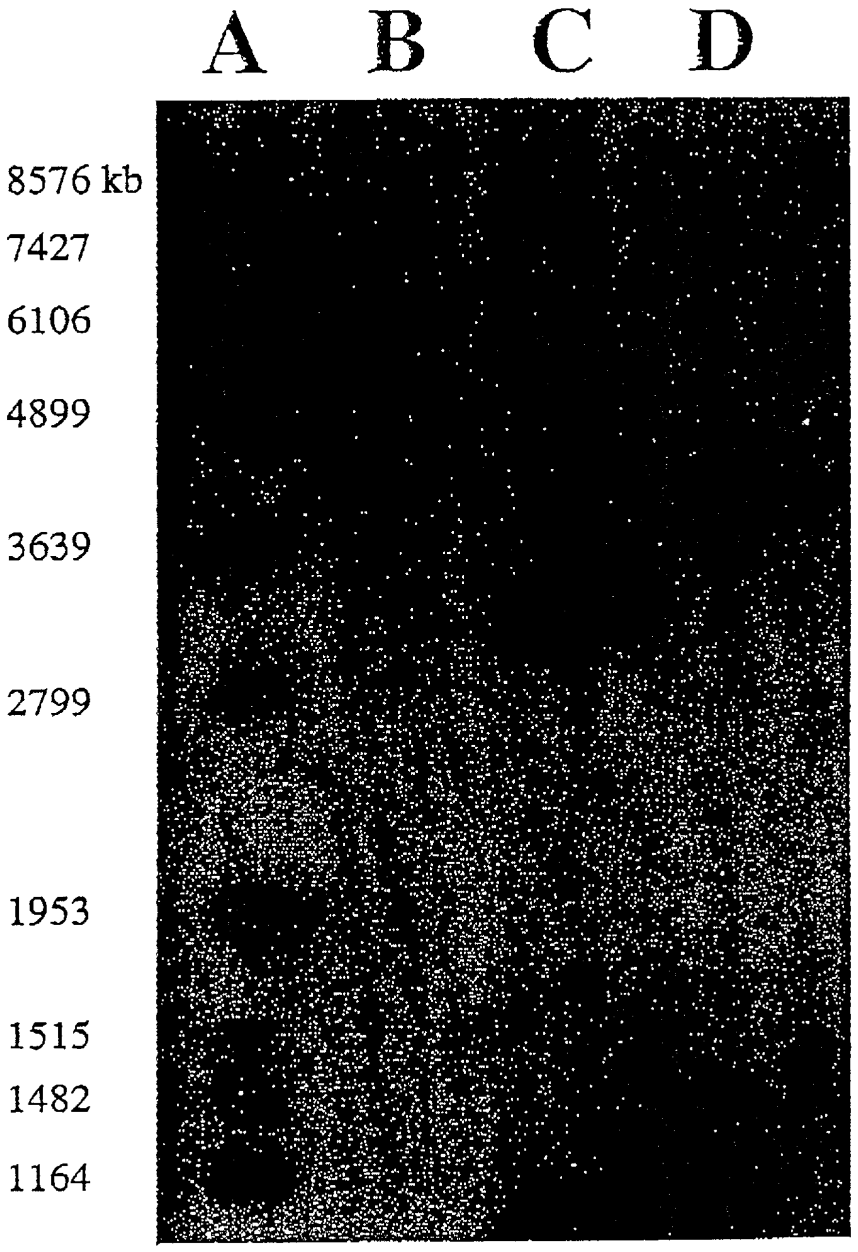
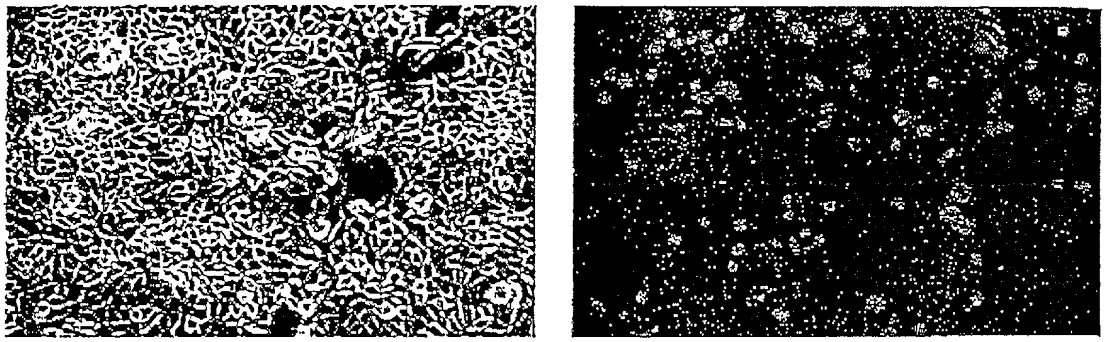
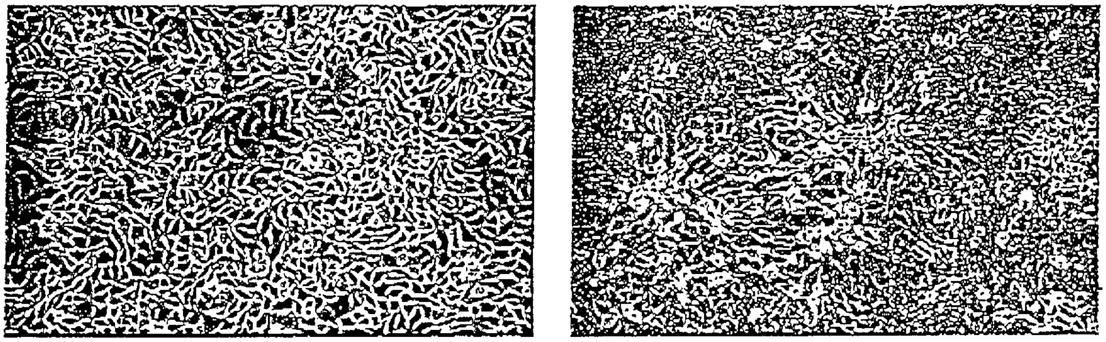


FIGURE 70



CRIB-1 [0hrs]

CRIB-1 [48hrs]



CRIB-1 BGI2 #19(tol) [0hrs]

CRIB-1 BGI2 #19(tol) [48hrs]

FIGURE 71

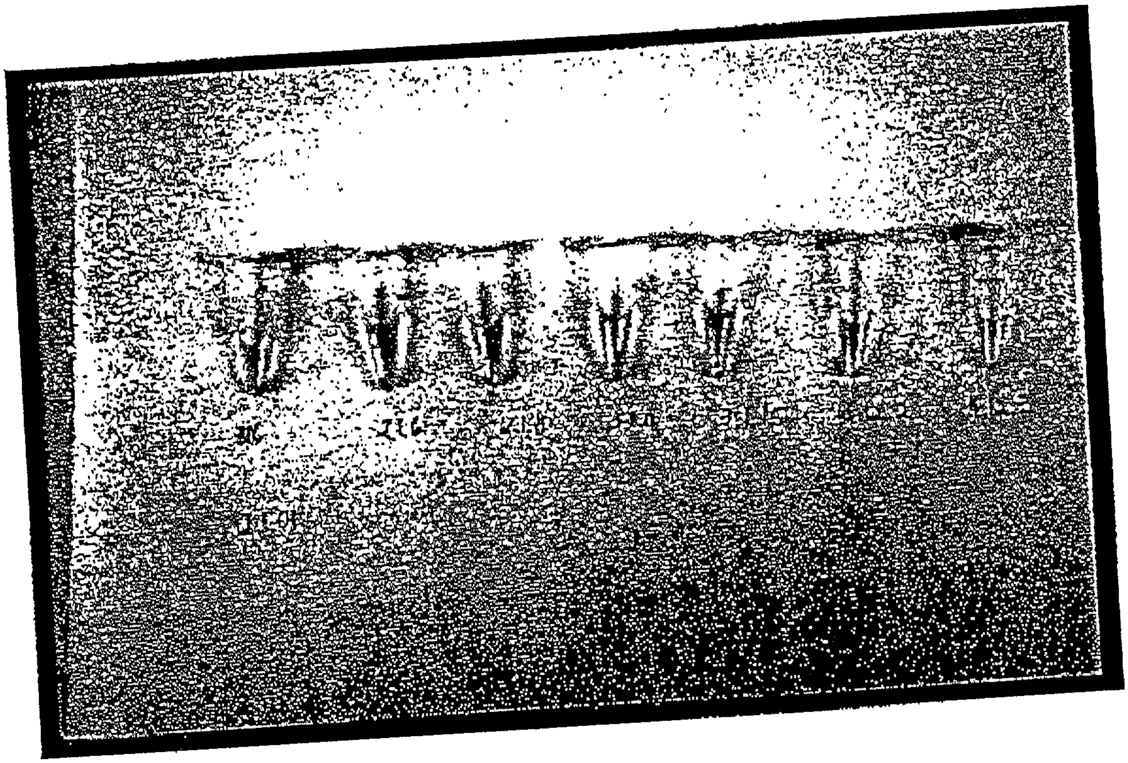
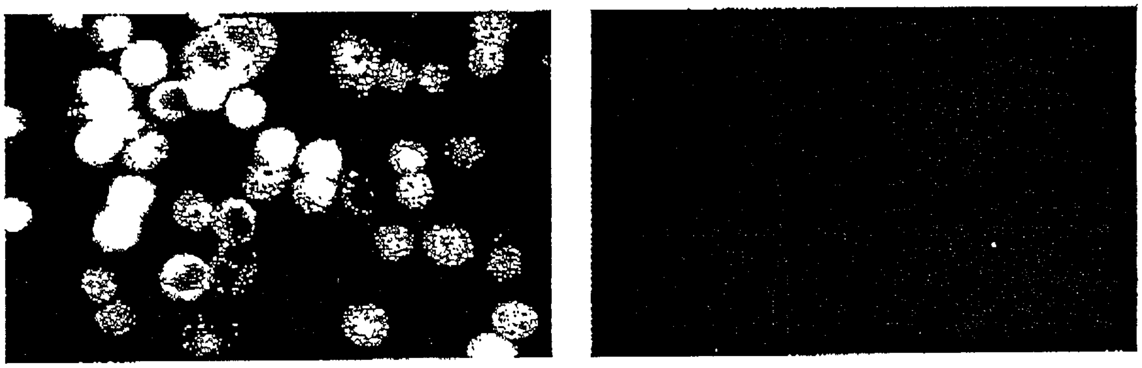


FIGURE 72

MDA-MB-468 [HER-2 stained] MDA-MB-468 [Background]



MDA-MB-468 1.4 [HER-2 stained] MDA-MB-468 1.10 [HER-2 stained]

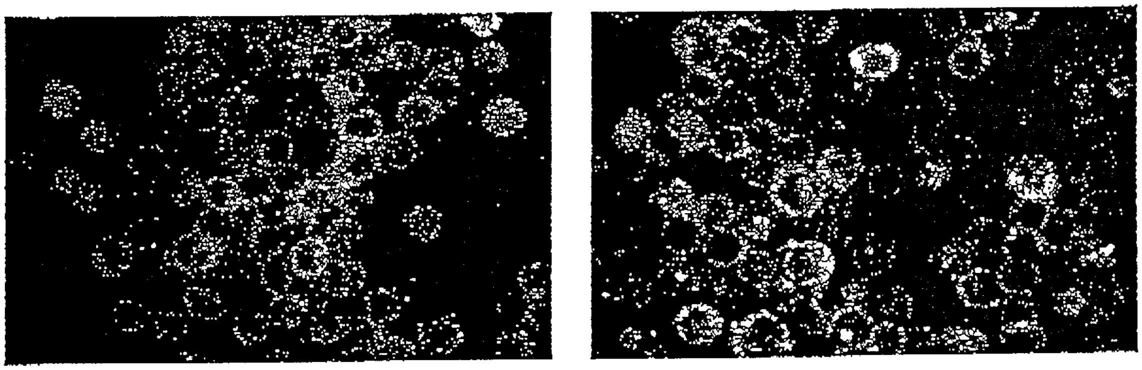
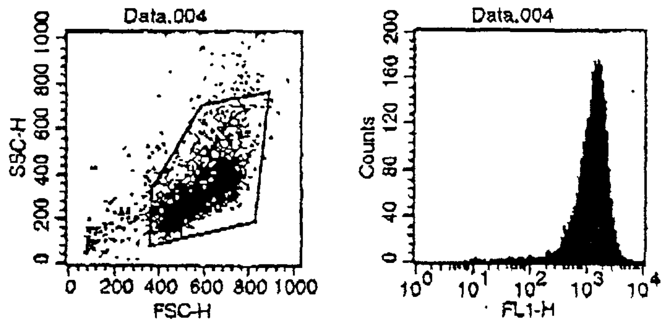


FIGURE 73

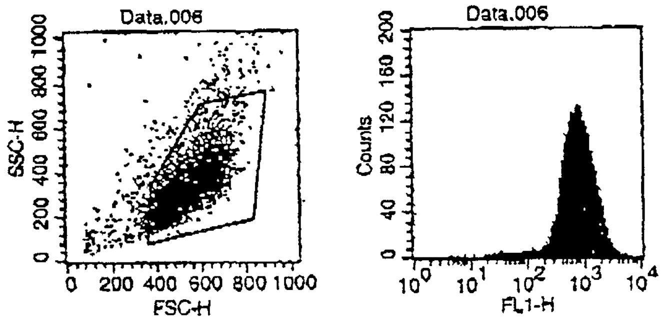
## MDA-MB-468



File: Data.004

| Mean | Geo Mean | Median |
|---|---|---|
| 1224.90 | 1086.47 | 1175.74 |

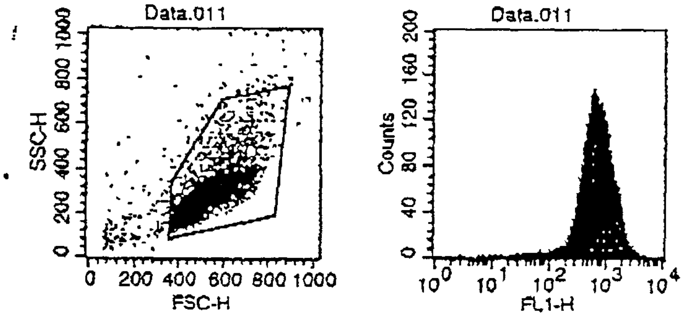
## MDA-MB-468 1.4



File: Data.006

| Mean | Geo Mean | Median |
|---|---|---|
| 781.72 | 664.67 | 673.17 |

## MDA-MB-468 1.10



File: Data.011

| Mean | Geo Mean | Median |
|---|---|---|
| 701.24 | 601.84 | 604.30 |

FIGURE 74

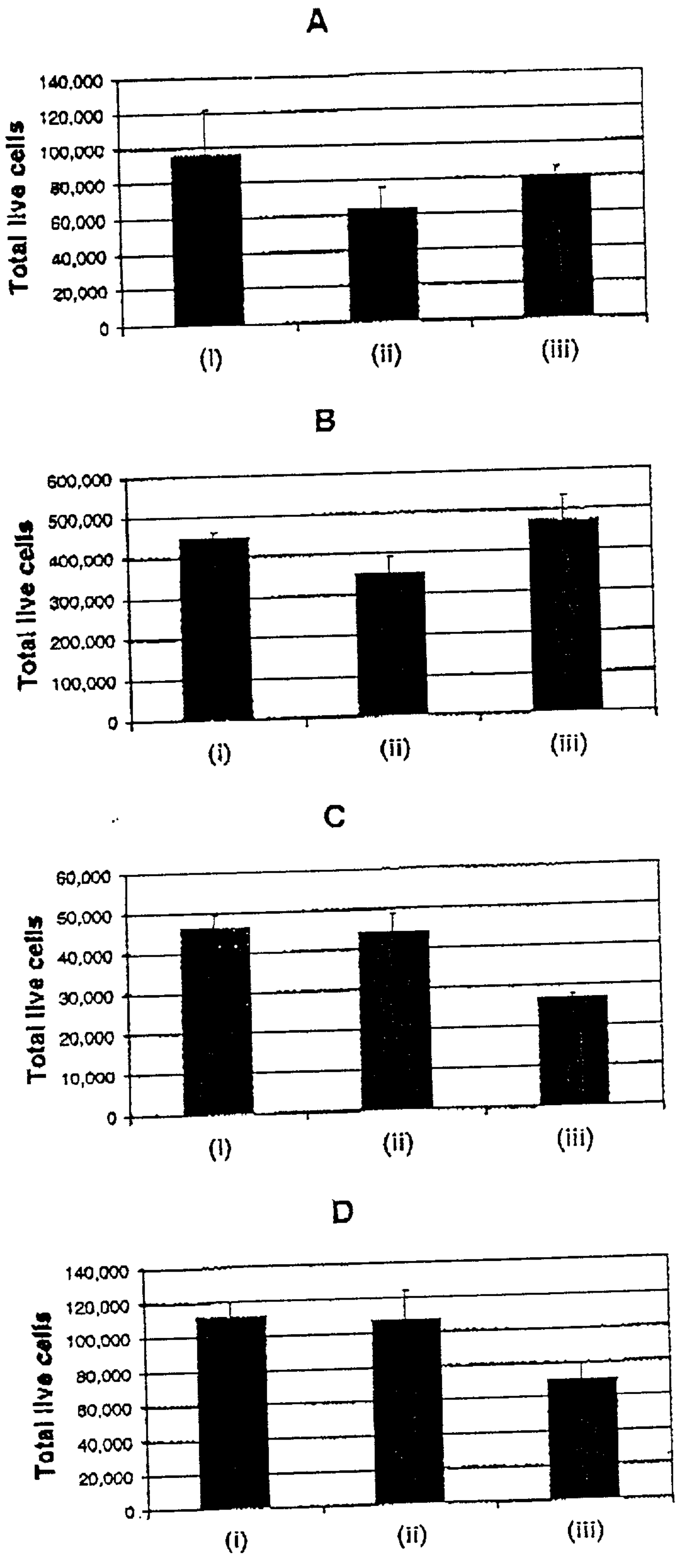

A
Total live cells
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0
(i)
(ii)
(iii)
B
Total live cells
600,000
500,000
400,000
300,000
200,000
100,000
0
(i)
(ii)
(iii)
C
Total live cells
60,000
50,000
40,000
30,000
20,000
10,000
0
(i)
(ii)
(iii)
D
Total live cells
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0
(i)
(ii)
(iii)

FIGURE 75

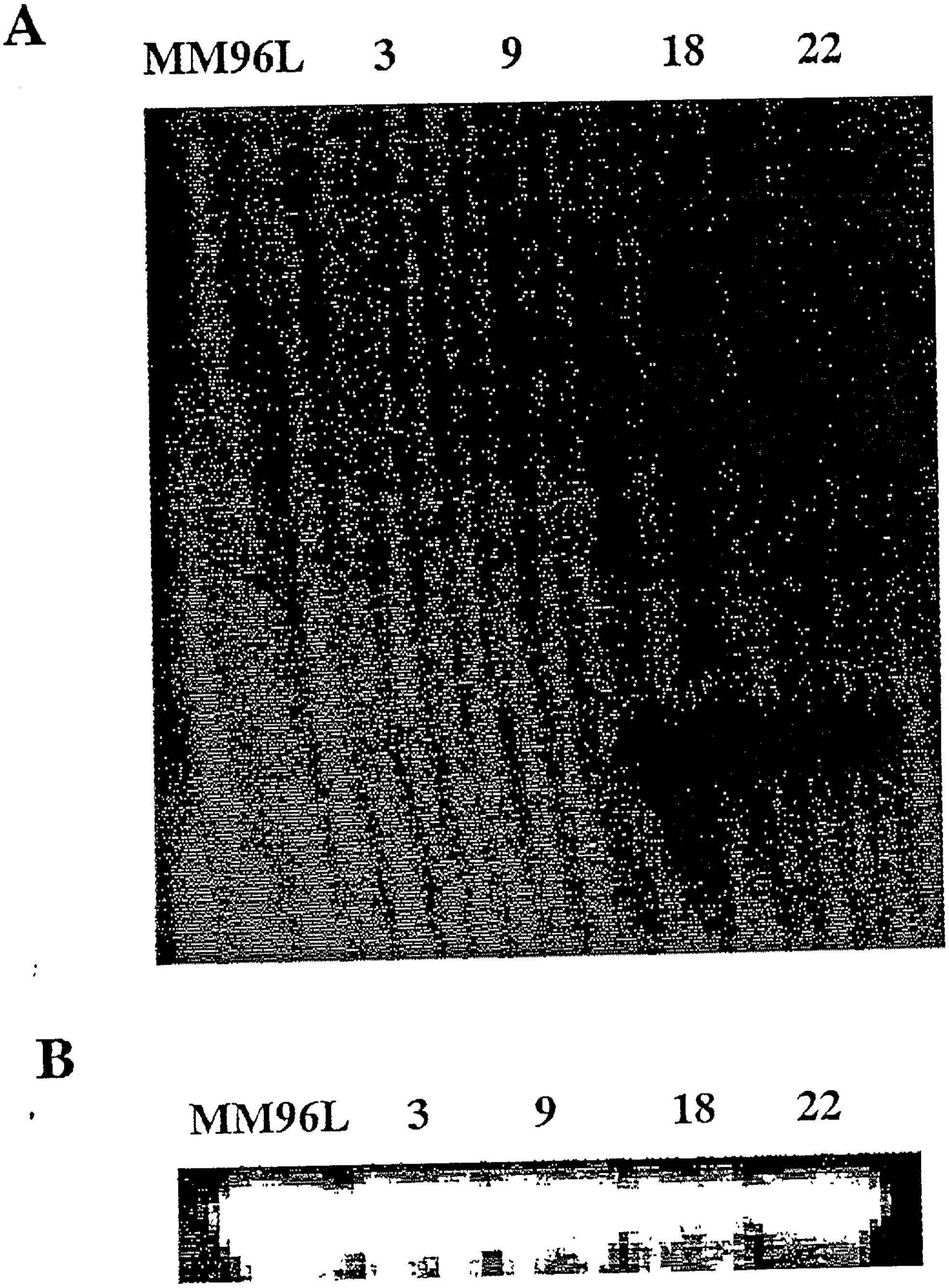


FIGURE 76

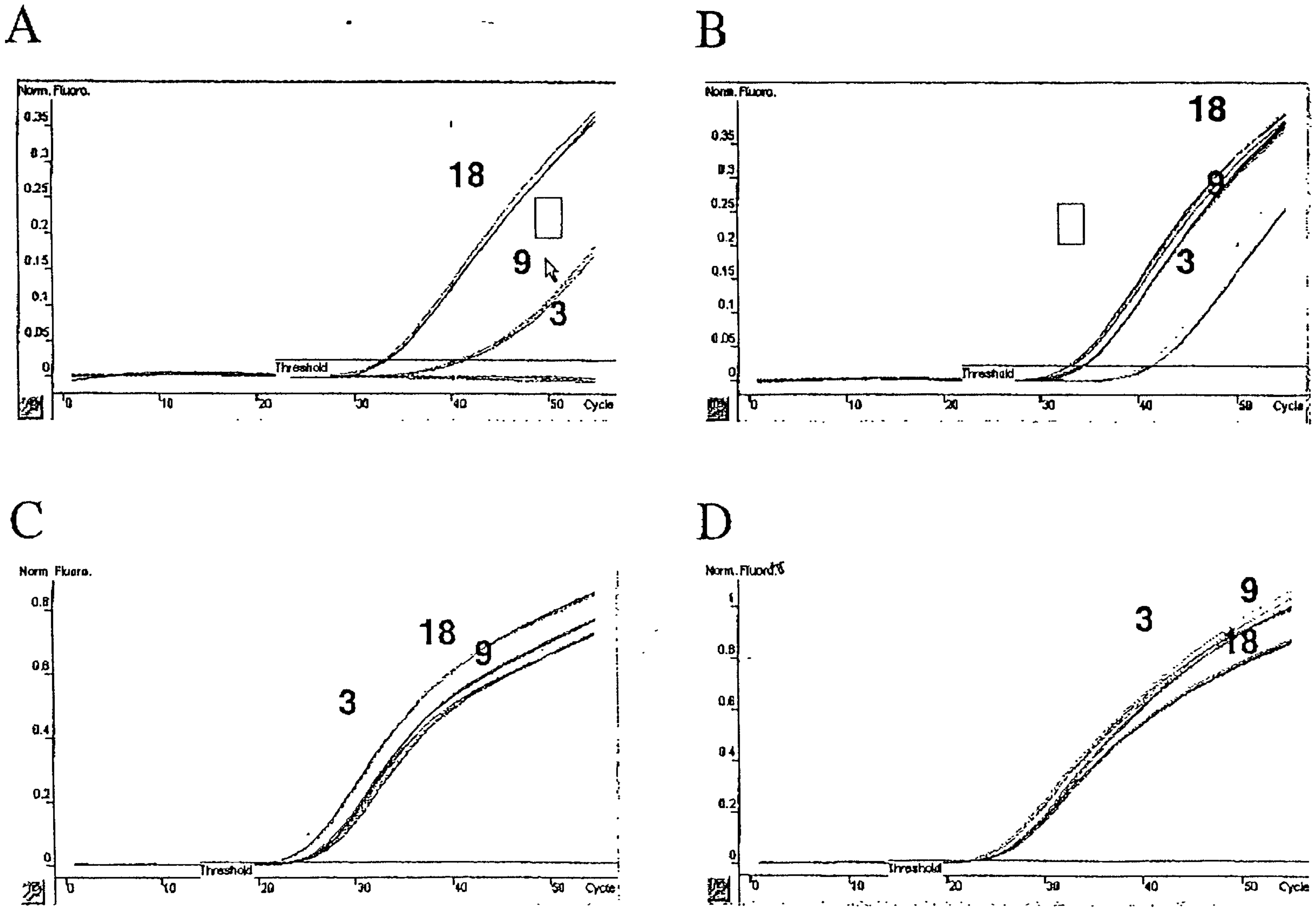

A
Norm. Fluoro.
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
Threshold
0
10
20
30
40
50
Cycle
18
9
3
B
Norm. Fluoro.
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
Threshold
0
10
20
30
40
50
Cycle
18
9
3
C
Norm. Fluoro.
0.8
0.6
0.4
0.2
0
Threshold
0
10
20
30
40
50
Cycle
18
9
3
D
Norm. Fluoro.
1
0.8
0.6
0.4
0.2
0
Threshold
0
10
20
30
40
50
Cycle
3
9
18

FIGURE 77

|  | mRNA |  | Transcription |  |
|---|---|---|---|---|
|  | EGFP | GAPD | EGFP | GAPD |
| Clone #18 | 1.000 | 0.435 | 1.000 | 0.233 |
| Clone #3 | 0.000 | 1.000 | 0.004 | 1.000 |
| Clone #9 | 0.005 | 0.467 | 0.379 | 0.233 |

FIGURE 78